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VOL. CXXIV No. 3013 WEDNESDAY, MARCH 28, 1951 Price 1/6

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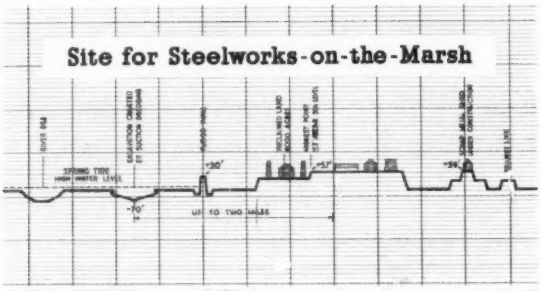

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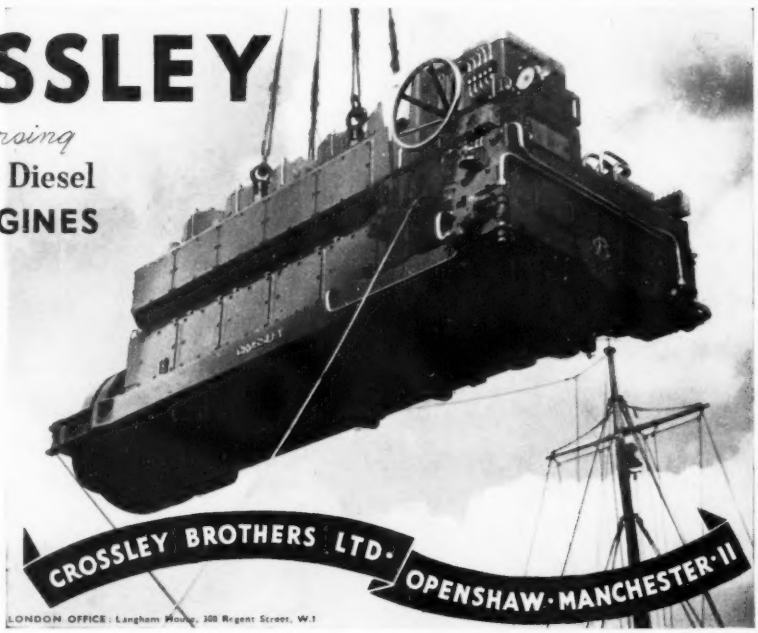

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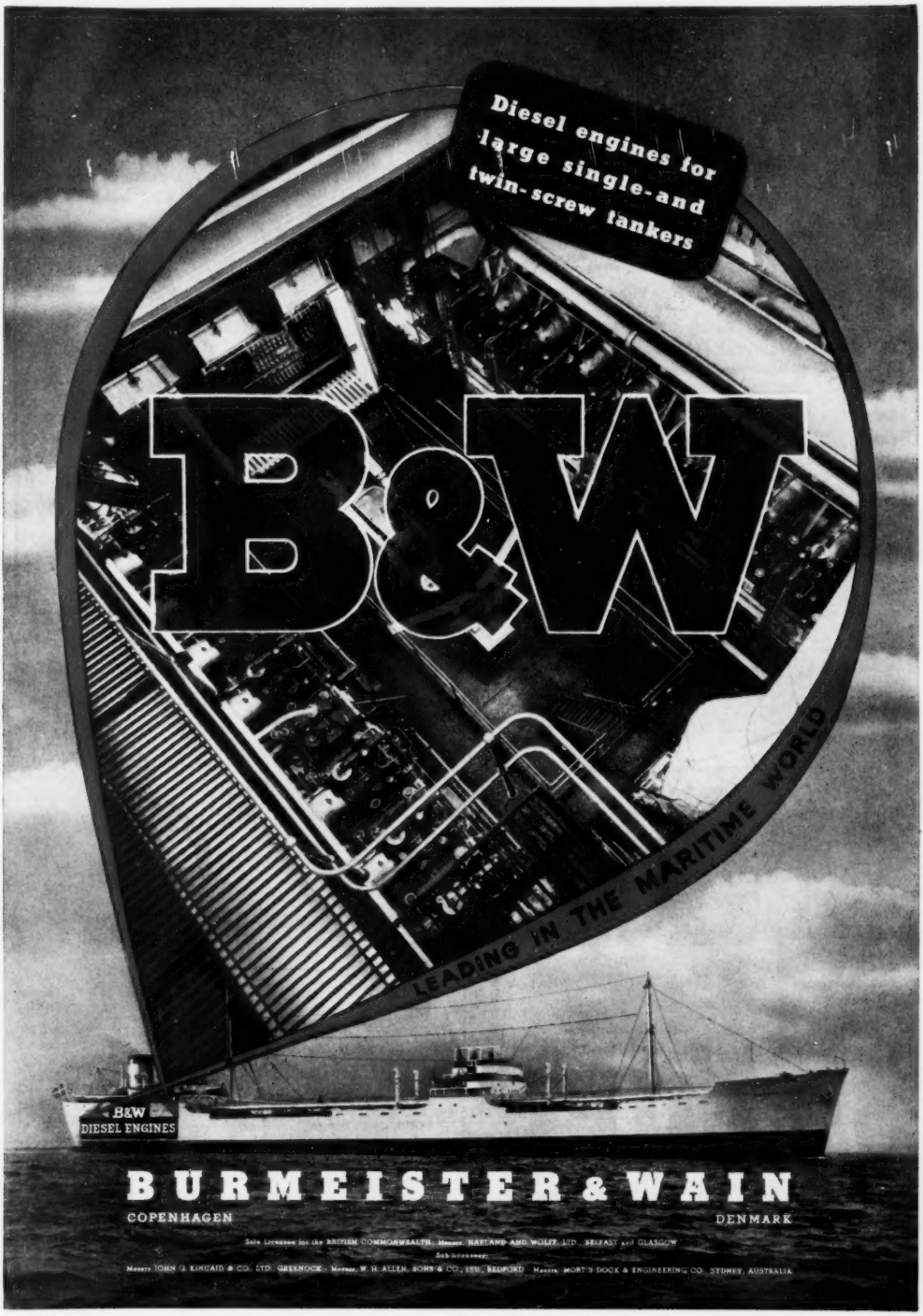
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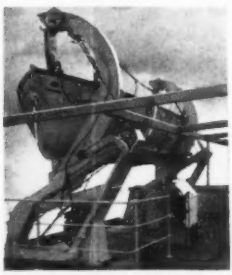

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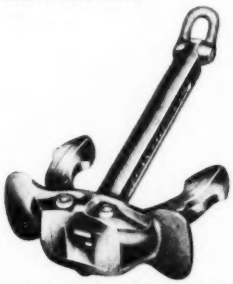

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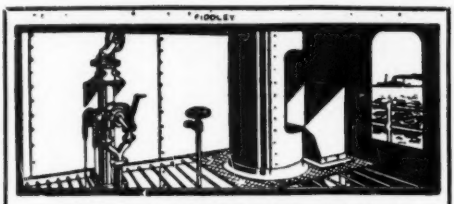

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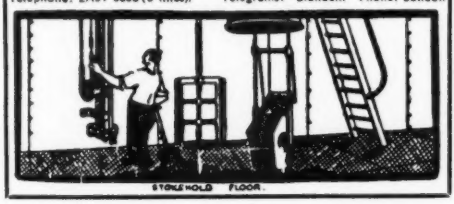

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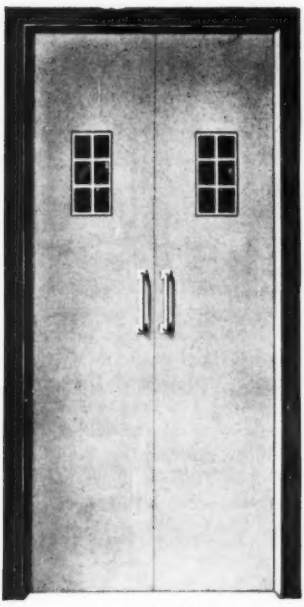

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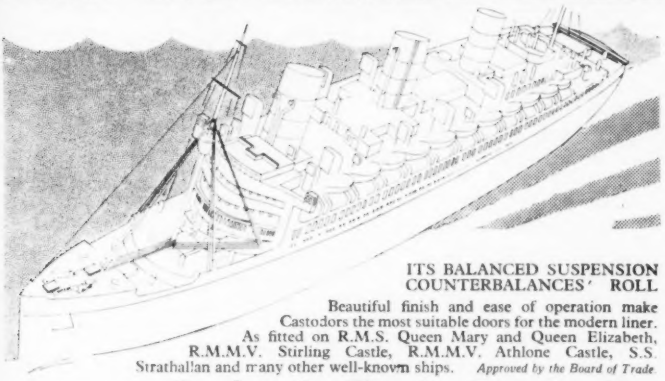

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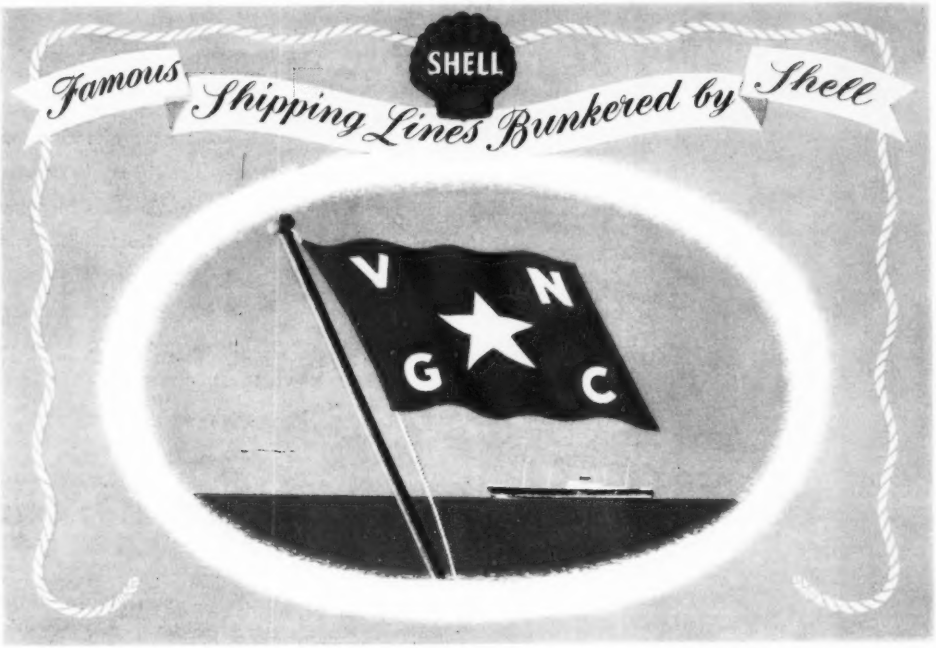

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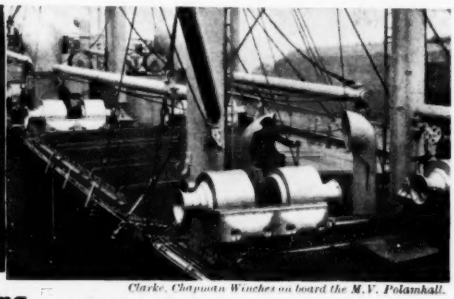

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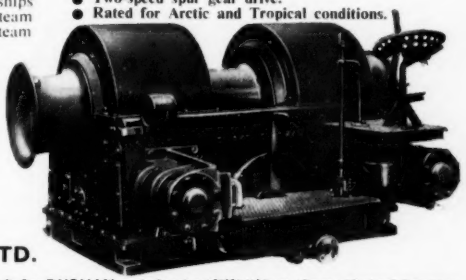

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ELECTRICITY IN SHIPS

THERE have for many years been advocates for the use of electrical installations employing alternating current in ships, and since the war the question has been debated at regular intervals in papers read before technical societies. The authors of most of these have put forward the claims of alternating current as the more economical and satisfactory proposition, and it might be considered surprising, in view of the apparent weight of opinion in favour of this course, that more recent British ships have not had A.C. electrical installations. The Admiralty has decided that future warships will have A.C. installations, and this might be advanced as further evidence that alternating current was the better proposition. The case of the Navy, however, is not really applicable, as two of the main factors which influenced the Admiralty do not apply to merchant shipping. The first is the tremendous amount of electronic apparatus in the modern warship. All of this requires alternating current for its power supply, and the result was that at the end of the war every warship contained a mass of small motor-alternators, each converting direct to alternating current for its own particular piece of apparatus. Although the modern merchant ship contains an outfit of radio and radar unheard of twenty years ago, it has yet to approach the complexity of the modern warship, and one can only hope that it never will. The second reason is the obvious necessity in any future war for the maximum cooperation between the Royal and United States Navies. The latter uses alternating current, and its choice for the Royal Navy will not only simplify maintenance at combined bases, but will facilitate the supply of American equipment.

There remain the arguments of the authors of technical papers. The weakness of these is that they have not taken the question to its logical conclusion, and worked out the overall first costs and running costs for the two systems. In some cases they have stated clearly that their intentions are only to show that alternating current can do the job. Nowadays this fact is not in dispute. It has been proved beyond doubt by the continued successful operation of a number of ships with alternating current installations. It is the possible economic advantages of alternating current which interest shipowners, and it is on this aspect that the arguments put forward have been at their weakest. In this issue of THE SHIPPING WORLD is published the first article in the second half of a series on this problem. In it the question is tackled, it is thought for the first time, from the point of view of the shipowner who has to pay the bills, and figures have been worked out for actual ship installations. As far as the series has gone, the conclusions have in general proved favourable to direct current. This, however, is not the most important aspect of the matter. The views reached by our contributor may possibly not command universal acceptance, but the validity of the methods that he uses to reach them cannot be denied, and they are of even greater importance than his actual conclusions. Until the advocates of alternating current use similar methods, their views will not be treated with the consideration that they may quite possibly deserve.

This, it is suggested, must be the next step of those who wish to advance the cause of alternating current installations. Very naturally the shipowner is not interested in whether or not it is possible to run his ships using alternating current. What concerns him is whether or not he may expect to effect economies in the long run by doing so, and it is this question that must be answered to his satisfaction before there is any general acceptance of alternating current for merchant ships. If a representative of a firm of electrical manufacturers were to cooperate with the electrical ship manager of a shipyard, and perhaps with the electrical superintendent of a shipping line, a paper could be written which would command general respect in any conclusions that might be reached. Direct current equipment is doing the job satisfactorily, and it can only be claimed for alternating current that it can do the job equally satisfactorily and for less cost. If this can be shown to be the case, its adoption will follow; if it proves to be a fallacy then direct current will continue to hold the field, perhaps until experience with Naval installations and further developments permit a better case to be made out.

Current Events

The Most International Trade

AT A TIME when almost every subject is becoming a matter for party political differences, all men of goodwill, whatever their allegiances to parties, would do well to keep in mind the several points made by Viscount Runciman, vice-president of the Chamber of Shipping in Cardiff on March 16. Speaking as the chief guest of the Bristol Channel District Association of Chartered Shipbrokers he said that the shipping industry was the most international of all trades and one which at present operated with the fewest restrictions, "for which," he said, "we must be thankful," as the successful recovery of the industry since the war was at least in part due to the people who knew their job being allowed reasonable freedom to get on with it. Anyone with knowledge of the industry will share the speaker's view, but the danger is that the future of shipping, and shipbuilding, marine engineering and repairing may be threatened by people without such knowledge. For the time being there is no active propaganda in favour of state shipping, but subterranean rumbles on the subject of state shipbuilding, with its associated activities, continue to be heard. The type of mind of those considering these

measures is fearful of both risk and profit; the first is unpopular in a welfare state, while the second is regarded as being immoral. Lord Runciman condemned this security seeking attitude so prevalent today, saying that the price of economic freedom was the taking of risks. He added that if we did not get a certain amount of encouragement from the mass of the people and were not prepared to risk money to improve the country's prosperity, our future would not be as glorious as the past had been. While recognising that the decline in shipping at South Wales ports was one for anxiety, Lord Runciman deplored any move towards direction of ships to those ports as being a two-edged weapon.

Shipping and Taxation

WORKING in cooperation, the Chamber of Shipping and the Liverpool Steam Ship Owners' Association are preparing the case of the shipping industry for submission to the Royal Commission on the Taxation of Profits and Income. On that issue, the immediate future of this country's maritime industries will depend. Official planners take short views and may be misled by the fact that today the shipyards are full of work. But shipowners have to look many years ahead and, taking risks, have to consider the situation in 20 or 25 years' time. The prospect is not cheerful, as the report of the Liverpool body emphasises. Owing to the continued existence of ships which were war-built and are inefficient or are over-age, the efficiency of the industry must decline unless the industry is permitted to retain sufficient money for replacement purposes—in other words, for the payment of the wages of the workers who should be engaged in turning out new tonnage in say, two or three years when the plans now under consideration have been completed. Shipping, as is pointed out, has a special claim for tax relief on earnings set aside for replacement since it is open to competition from every quarter and its capital, to a far greater degree than in most other industries, is invested in fixed assets of short lives and subject to periodical renewals at high cost. A ship, it is urged once more, is not a piece of plant in the same sense as is machinery in a factory. It is both a factory and its contents. This plea arises in an acute form owing to the great rise in the costs of replacement. The industry claims that earnings necessarily set aside and used for maintenance of capital should be excluded from taxable profits. Computation of profit for tax purposes which assumes that no more has to be done in the matter of replacement than to set aside amounts related to a first cost which has no true relationship to current replacement cost is inevitably depriving the industry of the resources essential to its existence.

The Solution to the Problem

THE REMEDY is to exclude from the sphere of taxable profits earnings properly and necessarily set aside for the maintenance of the business and so used. In applying such a remedy, every safeguard against misuse which the Government can and should impose, it is admitted, will be fully acceptable to the association. The safeguard which the association is itself demanding from the Government is one against the gradual but certain destruction of the competitive power of British shipping. That is a blunt statement of fact. There is no gainsaying it. The shipping industry, and indeed all the maritime industries, are being imperilled owing to the blindness of M.P.'s, almost without exception, to the gravity of the situation which is developing. If they would read the reports of the Chamber and of the Association, they would realise that there is a grave danger that the competitive efficiency of the industry will decline, thus reacting on employment ashore as well as afloat and reducing the contribution of about £150,000,000 a year which the industry is making on the right side of the national trading account, and they would bring much needed pressure to bear on the Treasury. There has been a good deal of talk about the Royal Navy in the House of Commons recently, but to an island community merchant ships are as essential as men-of-war. They are complementary. We should have learnt that lesson from our experiences in the two World Wars.

The Worker in the Welfare State

NO APOLOGY need be made for returning in these columns to the speech made by Admiral of the Fleet Lord Cunningham at the annual dinner of the Institution of Naval Architects on March 14. Reference has already been made to the retiring president's remarks on tonnage measurement, but there were many other aspects of his address which deserve careful consideration, among these being the need for cultivating a sense of responsibility among workers in the welfare state, to which, apparently all political parties are committed. Lord Cunningham warned that the willingness of foreign competitors to work longer hours with lower wages than those which obtain in Britain would intensify foreign competition, and that in these circumstances a continuance of the demands for easier conditions at home could serve only to jeopardise not only the national interest but that of the workpeople themselves. The president's remarks were quite general in their application to the whole concept of the welfare state and its effects upon industry, but there are good reasons for believing that if any remedy can be found it must be applied to separate industries or groups of associate industries. National exhortations for increased output and for an end to wage increases have been tried and found unavailing; it is always assumed that the other fellow needs to work harder. There can be no doubt that the danger referred to by Lord Cunningham threatens the maritime industries as much as other groups, perhaps even more, with the resurgence of Japan and Germany as shipbuilding nations, and it may be possible for the industries represented to provide a lead. The facts are that, given sufficient raw materials, a condition which no industry can of itself secure, there will be "full" employment—whatever that really means—in shipping, marine engineering and repairing for some years ahead. The level of wages cannot be settled without relation to national production of goods without severe inflation occurring. In these circumstances the present bickering over the last wage agreement in various localities is pointless, but the consequent ban upon overtime work threatens both economic recovery and the rearmament programme. It is time, and more than time, that shipping and shipbuilding leaders, in cooperation with the unions concerned, issued a joint statement on the future of the maritime industries. This would be the most satisfactory kind of educative work for which Lord Cunningham so rightly appealed.

Japan's Shipyards

SHIPBUILDERS in this and other maritime countries will watch with some anxiety the progress of the Anglo-American negotiations on the future of shipbuilding in Japan. The British Government desires that it should be restricted under the terms of the Peace Treaty, while at Washington it is urged that all that is necessary is to have a "gentleman's agreement" as to the extent of the raw materials which shall be permitted to enter Japan, which is largely dependent on overseas supplies. For some inexplicable reason the Americans have always looked disfavourably on the scrapping of a large part of Japan's shipbuilding equipment. Possibly they have in view the possibility that Japan might be useful on the seas in any war with Russia. But, on the other hand, the present shipbuilding resources of the world are more than adequate to meet every demand which may be made in the foreseeable future. Shipbuilding, moreover, is an internationally competitive industry and the Japanese, working long hours for low pay, have advantages over rivals with higher standards of living. Shall they be permitted to exploit those advantages at the expense of the labour

forces of other countries? That matter is one that affects the workers of the maritime industries of this country, who constitute no small proportion of our working population. But the overwhelming argument in favour of some such limitation as the British Government advocates is that Japan's aid is unnecessary. Shipowners have as large resources for building as they are likely to require and, in the circumstances, it would be advisable that the resources of the Japanese should be restricted so as to avoid unfair competition. The world can get along quite well without seeking aid from Japan.

Marconi Achievements

LAST YEAR the Marconi organisation completed its first fifty years, and it is therefore very fitting that in his speech to the general meeting of the company, reported elsewhere in this issue of THE SHIPPING WORLD, Sir George Nelson was able to announce an increase in the dividend paid by the company to 12½ per cent, which is 2½ per cent greater than that paid during the last 12 years. In its fifty years of existence the company has attained an eminence in the field of marine communications which is universally recognised, and this was well demonstrated at the jubilee celebrations by the attendance of what Sir George termed "so brilliant an array, including members of the diplomatic corps, Ministers of the Crown, and our good friends who sail their ships over the seven seas." The company, which now forms part of the English Electric group of companies, has given adequate proof in recent years that its virility remains unabated. It has expanded its activities both in the range of equipment which it can supply, and in the range of territories in which it can offer sales and maintenance service. Sir George was able to report the development of a new radar set—the Radiolocator Mark IV—and the extension of depot services in a number of different parts of the globe. A new depot at Karachi has been established to deal with the expansion of shipping business in Pakistan, and the company's service in Africa and the Far East has been improved by the establishment of a new depot at Mombasa. The company can rightly boast of the service that it can offer to shipowners, for it is able both to fit out a ship with a full set of radio, navigational and intercommunication equipment, and to put on board radio officers capable of operating the radio and maintaining the whole range of equipment. At a time when the amount of electronic apparatus carried in ships is increasing as it is at present, this is an extremely valuable achievement.

The Manufacture of Ships' Propellers

DURING the past 40 years there has been a tendency to specialise in the design and manufacture of many items of machinery and equipment for ships. The time when nearly every shipyard built lifeboats for the ships constructed in the yard is now gone, and several subcontracting firms now provide excellent boats at prices with which the shipyards, in general, cannot compete. The same principle applies in the supply of many other items of ship equipment including ventilation trunking, loose furniture such as tables and chairs, sidelights, and a wide range of fittings. Of the great number of sub-contracted items, the propeller is one of the most important and expensive and it is almost standard practice to order this outside, though one large shipyard still designs and casts its own propellers. A large proportion of propellers for the British and foreign ships building in this country, and indeed for those building abroad, are made by two well-known British engineering firms, the reason being that these firms have specialised in such work and have instituted both research and development over a very long period. It is therefore natural that many shipbuilders and owners merely provide an outline specification of the type of propeller they require and leave the design to these specialists. On the whole this is excellent practice, and it has had beneficial results in raising the overall standard of propulsive efficiency of ships, but it does mean that many naval architects and ship designers never come into close contact with problems of propeller design, still less those encountered in manufacture. Many papers are available however, on the design of screws, while an invaluable account of the process of manufacture of propellers is now available in a paper read on this subject before the Liverpool Engineering Society on March 7 by F. J. Tector, of the Manganese Bronze & Brass Co., Ltd. It will be found particularly valuable by those shipyard designers who prepare their own designs for propellers, as the limits of economic manufacture upon propeller design may be recognised.

The B.S.R.A. Vibration Tests

A MOST interesting paper giving some account of the work carried out by the British Shipbuilding Research Association on ship vibration, in cooperation with Lloyd's Register and the National Physical Laboratory, was read by A. J. Johnson before the North East Coast Institution of Engineers and Shipbuilders on February 23. The paper gives the results of tests carried out upon two standard 10,000-tons deadweight dry cargo ships, one of which is of riveted construction and the other all-welded, though the vessels are in other ways similar. The objects of the tests included attempts to obtain data to assist in devising new, and improving existing, methods of calculating the critical frequencies of ships' hulls, and to obtain information on vibration deflection forms and effects of loading distribution. An interesting feature of the results was that the all-welded ship tended to have larger vibration amplitudes than the riveted ship, suggesting that structural damping is greater in riveted ships. The Lloyd's Register vibration exciter was used to excite the various modes of vibration. This is a most interesting piece of apparatus having a central mass weighing some 4,000 lb. arranged to revolve in a counter direction to outer masses weighing 2,000 lb. each. Each mass is so designed that the centre can be moved radially relative to its axis of rotation, and when the masses are rotating, centrifugal forces are set up which are transmitted through the main shaft and steel frame to excite the ship into forced vibrations. In addition to the results of actual tests with full sized ships, the paper includes a discussion on the application of approximate formulæ and the full integral method of calculating two-node vertical vibration frequencies. Differences between the estimated and apparent sectional moduli of ship girders, as revealed from static bending tests, are discussed in relation to the frequency calculations.

Decca Navigational Equipment

A CLEAR picture of the considerable progress made in the adoption of the Decca Navigator and Decca radar was given in the chairman's address at the annual general meeting of the Decca Record Company on March 19. Sir Cyril Entwistle referred to the continued expansion in the hirings of the Decca Navigator, the total now exceeding 1,000 installations, while in addition a large number of receivers were being supplied to the Royal Navy. One of the most important new developments in connection with the Navigator was the introduction of the flight log, an invention which has been welcomed in aviation circles as it enables the pilot to see his position continuously on a map, with an actual recording of the course flown. The wider use of the Decca Navigator depends, of course, upon an extension of the present British and Danish chains of transmitters, and it was interesting therefore to note the chairman's announcement of a contract to construct a Navigator chain in Western Germany, while negotiations for a similar contract for France were virtually complete. These are creditable achievements, as it is known that there has been considerable foreign competition, while these further extensions will make it more certain than ever that the Decca system will

become a standard air and sea navigational aid over a large part of Europe and its waters. The sales of Decca radar have also expanded rapidly, substantial contracts having been received from the Royal and Swedish Navies as well as other naval authorities. Large numbers of merchant ships have been fitted and to date orders have been received to equip more than 800 ships of all types, some 50 per cent of total deliveries having been for the export market. The chairman also referred to the development of a new harbour radar which has already been described in The Shipping World.

A U.S. Proposal to Build 500 Ships

From time to time the share of world tonnage under the U.S. flag is condemned by American shipping spokesmen as being too small; the most recent statement of this kind comes from Mr. Theodore Brent, president of the Mississippi Shipping Co., in an article in the *American Magazine*. Mr. Brent goes further. Not only is the American merchant marine "woefully inadequate" but, according to his proposal, a new ten-year programme of ship construction, carrying an annual subsidy of 400 million dollars, should be put in hand. It is noted, however, that the Federal Government might expect an "almost certain guarantee" that up to half of this amount would be returned in purchase of the ships by operators. Mr. Brent's five reasons for proposing such a sweeping measure are of some interest. First, the majority of existing American ships are too slow for modern submarine warfare. It might be added that so are most of the ships of every country, including Britain. The number of merchant vessels under the American flag that can compete with foreign vessels and be used in wartime is too small. The plain fact is that if some of the countries other than America are to be ousted from the sea lanes of the world by subsidised ships, all attempts to build up world trade will be unavailing, and without increased world trade, the road to Communism in Europe is made wider. Thirdly, at least one third of the life of the useful American ships is spent, Mr. Brent contends; this also applies to every other maritime country. Fourth, the huge fleet of World War II cargo vessels now laid up are worthless in peacetime. This may be true, but they would be invaluable, in a convoy system, during the early part of any future war. Mr. Brent's last reason is that the American merchant fleet should have the benefit of government funds in the manner of "virtually every other nation in the world." This is inaccurate. It ignores the largest commercial fleet in the world, that operated by Britain, which has no subsidy, either for building or operation. In fact, the reverse is the case; the British fleet is successful more despite its Government's efforts to kill trade by bulk buying than by direct state assistance.

A Successful Year

The results of the Orient Steam Navigation Company for the year ended September last forecast an equally good outcome of the past year's trading for the parent concern, Peninsular & Oriental. The operating profits of Orient Steam rose in the year under review from £887,000 to £1,321,000. Owing to the Exemption Order, 1948, these results are not strictly comparable; the 1948-49 profit was struck after the crediting of £295,000 *from* deferred repairs while the 1949-50 figure is reached after the transfer of an unstated amount *to* reserve for contingencies. The profit improvement is thus greater than is shown in the latest accounts. Depreciation takes on this occasion £362,000 (against £317,000), while tax absorbs £786,000, compared with £312,000 without benefit of the initial allowances relief. Group net profit emerges, therefore, rather lower at £358,000 (against £455,000). Even so the maintained dividend of 5 per cent tax free—the cost of the distribution is £52,000 only—has generous cover. Stockholders may again feel aggrieved that their dividend is not raised and that no share bonus is to be distributed. Certainly the group balance sheet is immensely strong. Reserves total £8,408,000 with the pensions and future tax reserves taken out of the reckoning, and contrast with an issued ordinary capital of £1,040,880. The fleet account is moderately valued at £5,111,000, which sum is not much in excess of the replacement reserve of £4,348,000. At the same time the liquid position is most satisfactory; current assets of £7,564,000, including £1,430,000 in cash and £5,429,000 in quoted securities, exceed current liabilities and provisions by £5,529,000. But there are commitments under contract for new tonnage estimated at £2,000,000 and it is clearly the intent of the board to continue financing fleet replacement and modernisation from profits ploughed back into the business. Who shall say that the directors are not right?

Air Power in War

There is an increasing conviction that the Government is pursuing a mistaken policy in regard to civil aviation. It was an error to make it a monopoly, thus ruling out competition which promotes efficiency, and in practice it has been a costly failure, for the services are all run at a loss, which has to be met by subsidies. The independent operators are treated most unfairly. As Mr. Ward pointed out in last week's debate in the House of Commons, they are not allowed by law to advertise for fare-paying passengers for return travel; they have to find someone who will charter the whole aircraft. But the corporation can advertise for and sell tickets seat by seat just as though it was a regular scheduled service. Often the private operators have been able to submit the lowest tenders. There is no doubt that the charter companies are getting a raw deal and it is remarkable that so many of them had been able to survive. It is fortunate that they have done so, because they have a vital part to play in our defence arrangements. As Mr. Ward emphasised, it is mainly the charter companies that would step into the gap with Transport Command. "If the persecution of the independent operator persists, the Minister will be doing his best to destroy a valuable strategic asset." One result of the success of the Conservatives at the General Election would be that the whole organisation of civil aviation would be reviewed. Then shipowners would have another opportunity of re-stating their case for freedom to develop air services side by side with their existing sea services, resulting in a saving of several million pounds a year to the taxpayers and an increase in the number of pilots and machines in time of war.

SAYINGS OF THE WEEK

THE SPHERE OF THE INDIVIDUAL

"I do not believe that any centralised planning authority is capable of doing as good a job for the world as a large number of individual skilled men each exercising his skill and cunning in the job he knows best."—*Viscount Runciman*, vice-president of the Chamber of Shipping.

DECLINE IN BRITISH TRAMP SHIPPING

"I would remind you that we, as a country, are no longer the principal power in world tramp shipping. British shipowners have not been permitted to sell freely to other countries certain of their more uneconomical units, to replace with more modern tonnage, and have watched our foreign friends being permitted to build new vessels in this country and these sales regarded as 'exports'."—*Mr. J. A. Billmeir*, chairman of the Stanhope Steamship Co., Ltd.

A GENEROUS GESTURE

"A spreading fire reached and utterly destroyed the new depot premises which we had recently built there (in Capetown) in conjunction with our associated company, Marconi (South) Africa), Ltd., and one of our shipping clients immediately offered us temporary accommodation, and insisted on housing us as its guests. This was a generous gesture which we much appreciated."—*Sir George Nelson*, chairman of the Marconi International Marine Communication Co., Ltd.

ON THE "BALTIC"

RAPID DISPATCH IN ST. LAWRENCE GRAIN TRADE

By BALTRADER

THE FIRST fixture of the year for wheat from the St. Lawrence is always an interesting event. There are some owners who have always specialised in this trade throughout the summer: in fact some of their vessels must be a very familiar sight to the stevedores of Montreal, Quebec and Three Rivers, having appeared with regularity every season during a quarter of a century. The virtue of the trade is the rapidity with which a round voyage can be performed, on account of the excellent dispatch at the loading port and the short voyage to Europe, provided, of course, that the discharge on this side is also satisfactory. Unfortunately since the war our ports have been and continue to be so busy that one cannot rely upon a quick turnround, especially as the capacity of our grain discharging appliances is insufficient to cope with the usual rush. Many elevators were worn out during the war years and some destroyed by enemy action; they are very costly to erect and the limitation imposed upon capital expenditure has left our ports ill equipped. The completion of a quick St. Lawrence round is best ensured by taking a cargo to Belgium or Germany, where the adequate appliances and the double shift system turn large ships round in a day or two.

The advantage gained by those countries through their reputation for dispatch is shown by the opening fixtures of the St. Lawrence season arranged in the last fortnight. The first charters were from St. Lawrence to Antwerp, May, at $12.35 and $12.40, the latter equal to about 88s. 7d. per ton; later fixtures were to the United Kingdom, June, at 22s. 6d. per quarter, say 104s. 8d. per ton. For the large vessels the St. Lawrence round voyage with grain is convenient if continuous employment throughout the summer is obtainable in that trade, because the shifting boards remain in position during the whole period. This appeals particularly to the owners who dispose of their shifting boards almost every time they leave the grain trade; their argument for this rather drastic custom is that shifting boards, when stowed away, take up quite a lot of space and when required again for use are always seriously incomplete. A new set can be obtained more cheaply in the St. Lawrence than anywhere else and the cost will be well covered by a series of consecutive voyages. The answer seems to be the "Mezzodeck," namely, the permanent fitting of a tweendeck which can be hinged to stand upright and form shifting boards when required.

Anthracite Cargoes Outwards

Owners of vessels of smaller size engaged in the St. Lawrence grain trade seem to find it advisable to take out a cargo of anthracite from Swansea. This procedure is of benefit to the United Kingdom as it serves a valuable dollar earning export. The anthracite is discharged in about a couple of days but sometimes holds up the ship at Swansea if the cargo is not coming down to the port in sufficient quantity. It is not an ideal cargo by way of ballast for the westward passage, as the immersion which it provides is considerably more than that given by an optimum amount of ballast. The freight helps to pay for the cost of the outward run, but only to a small extent in view of the low rate of freight which is normally obtainable. It is, in fact, surprising that last season, for instance, the anthracite charterers obtained all the tonnage they required at 15s. to 17s. 6d. The shifting boards have to be removed and set up again at every round voyage and the holds swept clean of coal dust to receive grain.

The common practice of owners is to arrange to carry a number of anthracite cargoes spread over the season and they must sometimes find it a troublesome matter to keep sufficient ships in hand to carry out their commitments. Furthermore, the vessels which owners contract to take anthracite to the St. Lawrence through the season are not able to obtain a similar contract for grain; they must take their chance of the homeward market and this sometimes lets them down. They are in any case very much at the mercy of the Ministry of Food or Continental grain charterers, for there is seldom anything but wheat to bring home from the St. Lawrence. The timber charters from Eastern Canada to the United Kingdom always include the option of loading at St. John, N.B., or Halifax, at a heavy reduction in freight. This is calculated on the value of an owner of loading at those ports when he sends a vessel across in ballast from this side. It would not pay to bring a vessel down to St. John or Halifax from Montreal and give away a reduction in the basic rate of freight. There may be cargoes of ore available at Wabana, but the rate of freight for that employment is only suitable for the big ships which quickly make the short run in ballast from this side. To cut a long story short, it would be more satisfactory if the anthracite paid a higher share of the freight when we sell it to Canada and buy wheat in return.

The Freight Markets

Cargoes of coal from Hampton Roads have continued to take pride of place in the freight markets. Fixtures have been arranged as follows: $14 to Rotterdam, option Hamburg $14.50, March/April; $13.50 to Savona, 7/30 April; $13.65 to picked ports West Italy, May/June and $16 to Buenos Aires, August. *Hazelbank* and *Lord Lloyd George* were fixed last week for sulphur from Galveston or Port Sulphur to the United Kingdom at 143s. and 145s. respectively, to load in April. The *Rembrandt* is fixed from Cuba to U.K. at 145s., sugar, June/July, option second voyage at 135s. August or 130s. September. The *Monte Jarta* is fixed from up and down River Plate, 5,500 tons to Antwerp or Rotterdam at 132s. 6d. heavy grain, March/April, which shows a decline. From full range Australia the *Trewarlas*, 9,000 tons, is fixed at 160s. bulk wheat ex silo, 25 July/25 September with dates to be narrowed later. The market from North China/Manchuria is very active; *Themoni*, 9,200, *inter alia*, is fixed from Dairen or Chinwangtao to Antwerp or Rotterdam at 200s. f.i.o., option Hamburg 5s. extra, mixed cargo of soya beans, etc., April/May. The Black Sea to U.K. has paid 82s. 6d., heavy grain, May. Biscor have fixed tonnage for ore from Bona to U.K. at about 55s., or 10s. more than recently accepted. East Coast U.K. to West Coast Italy, coal, has accounted for several fixtures, and the higher rate of 40s. has been paid. A vessel has been chartered from Calcutta to Denmark at 160s. with coal. She is at present carrying coal from Gdynia to Chittagong!

Air Charter Business

Air freight inquiries are on a fairly broad basis. Fixtures include general cargo from the U.K. to Hong Kong and a return journey with passengers, a Viking and a Dakota with passengers from Paris to Beirut and Kalandia and a Dakota with passengers from London to Johannesburg.

The Chamber of Shipping index number of tramp shipping freights for February 1951 is 164.7 (1948 = 100). This compares with 151.9 for January 1951 and with 75.5 for February 1950. The index number is based on tramp fixtures in sterling reported during the month.

COAL AND OIL

PETROLEUM CODE OF SAFE PRACTICE

SPEAKING at a meeting of the Institute of Petroleum recently, Mr. E. J. Sturgess, head of Shell's Engineering Department, reviewed the results of detailed tests made under the direction of the Engineering Committee of the Institute. The aim of these tests is to point the way toward a standard and universal Code of Safe Practice in the petroleum industry, obviating, however, over-elaborate precautions which in some areas have tended to impair both efficiency and public confidence. The Engineering Committee, set up in 1948 under Mr. Sturgess's chairmanship, has already revised the industry's Electrical Code, and since completing that task has spent over a year on the Safety Code tests. Sub-committees have been working on the production, refining and marketing aspects of the problem. Various hazards have been considered, the fire risk occupying the most attention. Wide discrepancies exist overseas as to safety distances and the like, many regulations still current plainly dating from the early days of the industry. Attention was concentrated on discovering the extent of an explosive atmosphere during normal operations, both in temperate and tropical climates. It was soon found that even a slight wind often reduced the danger area almost to zero, so wherever possible the standard tests were made in conditions of minimum wind velocity. Storage tank filling, vehicle, barge and service station tank filling, pumping, and gas-freeing of tanks were among operations scientifically observed.

Results of Experiments

IN GENERAL, it was found that in the normal day-to-day filling operation which takes place on oil installations the extent of the dangerous area was very limited, with the maximum about 30 feet when pumping into storage tanks and down to about 8 feet or less when filling road vehicles and small containers. It was also found that the most dangerous operation was the gas-freeing of storage tanks, where the extent of the dangerous area was found to be 70 or 80 feet, or more, away from the tank. This, however, is something which is carried out only intermittently, and special precautions must be taken during this operation. In no case was an explosive mixture evident more than 8 feet above its source, and one other point which came out was that a strong smell of gasoline does not in itself necessarily mean a dangerous concentration of gas. Mr. Sturgess concluded by stressing the importance of well-trained and experienced staff without whom no safety code, however well devised, can be effective. It is the training of staff which has enabled the oil industry to maintain a safety record that is unique throughout the world.

Handling Arrangements for Coal Imports

THE TRANSHIPMENT of incoming coal cargoes at Continental ports was mentioned by Mr. A. Harrison, presiding at the annual meeting of the Tees Liner Agents' Association. He said that the shortage of railway wagons had become a serious matter in delaying the loading and discharge of cargoes from ships entering the Tees. An unusual angle to this difficulty had been emphasised by the fact that several large American ships bringing coal to this country had been diverted to Rotterdam for discharge, where the coal was being transferred to coasters. With the present high freights the coal must be costing the country between £8 and £9 a ton. He had been told by a Coal Board representative that this was being done because we had no large barges, but the prime reason for the diversion was the shortage of rail wagons. He said he was certain that some of these ships could have been berthed at Middlesbrough and other East Coast ports, but so far as he was aware no such inquiries had reached Tees-side. Discussing other subjects, Mr. Harrison said that some of the liner companies were objecting to the further increases in stevedoring, shipping and checkers' charges, which were 10 per cent higher. Consultations had been arranged because everyone was getting alarmed at the higher trend in costs, the result of which was already being seen in higher freight rates, which would now tend to increase further as officers, engineers and crews of ships had also been granted an increase.

OFFICIAL NOTICES

New Companies

SOUTH AFRICAN SAINT LINE, LTD.—Registered March 9. To carry on business of shipowners and brokers, etc. Nominal capital: £100 in £1 shares. Directors: Not named. Subscribers: Gwendoline G. Ellston and Pamela P. Geduld, 6 Austin Friars, London, E.C.2 (clerks).

CAPE SAINT LINE, LTD.—Registered March 9. To carry on business of shipowners and brokers, etc. Nominal capital: £100 in £1 shares. Directors: Not named. Subscribers: Gwendoline G. Ellston and Pamela P. Geduld, 6 Austin Friars, London, E.C.2 (clerks).

BLANDFORD SHIPPING CO., LTD., Bevis Marks House, London, E.C.3.—Registered March 7. Nominal capital: £100 in £1 shares. J. E. C. Macfarlane, 35 Hamilton Terrace, London, N.W.8, signs as director.

[Information from *Jordan's Daily Register of New Companies*]

GOLDFISH, LTD.—Registered in Belfast March 7. Capital: £1,000 in £1 shares. To carry on the business of deep sea and general fishing, etc. Subscribers (each with one share): Harold A. Gollifer and Mrs. Violet C. Gollifer, both of Beechmount, Saintfield, Co. Down. Directors: Not named.

Change of Name

CITY SHIPPING CO., LTD., 16a Bevis Marks, London, E.C.3. —Name changed to Tsavliris (Shipping), Ltd., on February 28.

U.S. Government Claims A.P.L. Stock

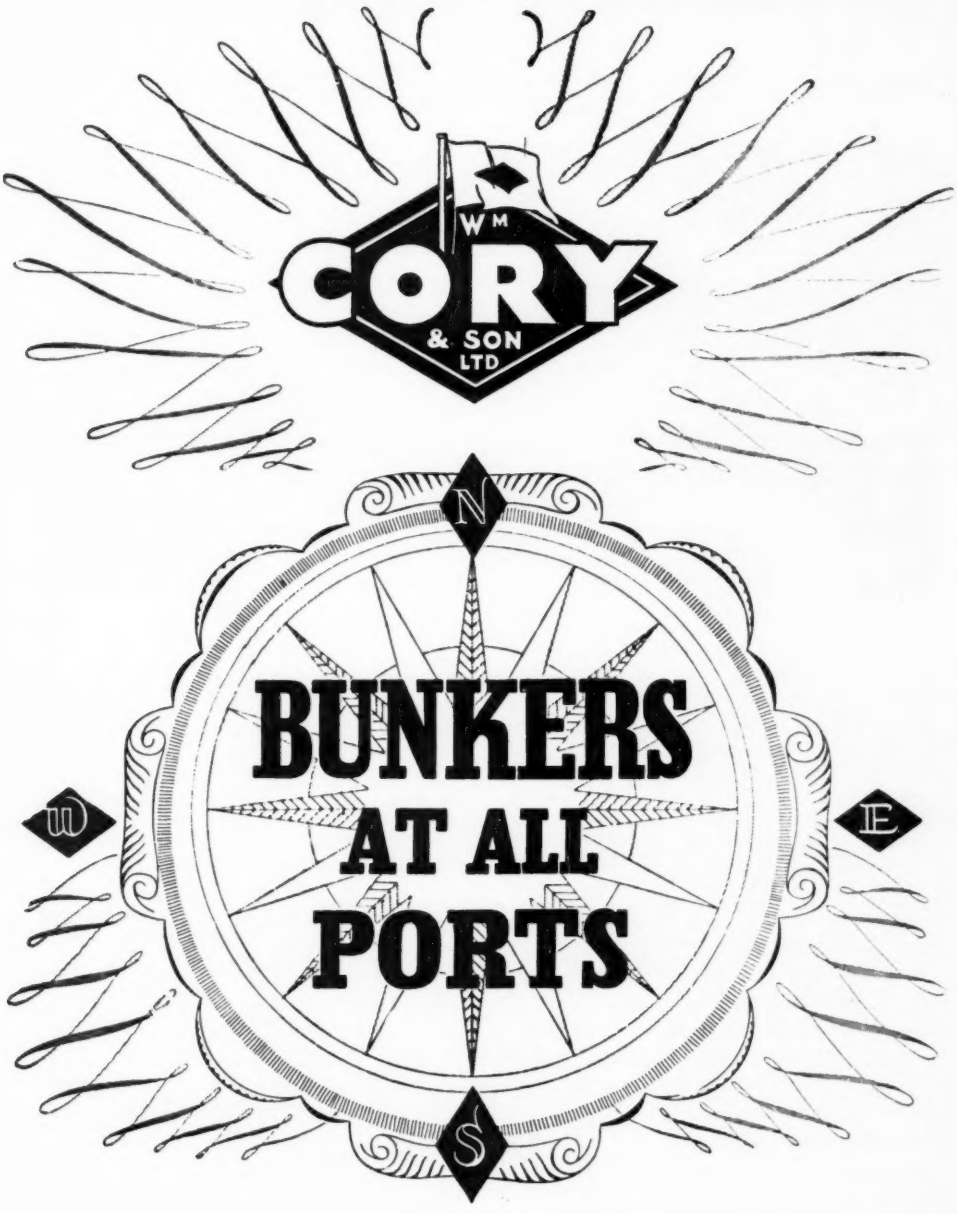
The U.S. Government has brought a new action in the Federal District Court, San Francisco, claiming that it is the legal owner of 92 per cent of the shares of the American President Lines. This is the first time the Government itself has figured in the long series of law suits in which Mr. Stanley Dollar, of San Francisco, claims legal ownership of the shares.

Mr. Dollar contends that he handed over the stock to the old U.S. Maritime Commission as security for debts assumed by the Government. These debts were repaid through the company's wartime earnings and he sued for return of the stock in 1945. His suit was against Admiral Land, former chairman of the Commission, and other members of the Commission. The U.S. Court of Appeals decided in favour of Mr. Dollar and the U.S. Supreme Court rejected a Government request for a new hearing.

Almost as soon as the Supreme Court had acted, however, the Justice Department brought its new claim in the San Francisco Court. New evidence will be presented without reference to the old suit, and an entirely fresh case will be heard. Counsel for the Department of Justice admitted that the courts had already decided that Mr. Dollar owned the stock, but added: "We think the decision was seriously wrong."

THE surveying vessel H.M.S. *Dalrymple* returned to the United Kingdom last week after completing a two-year hydrographic survey in the Persian Gulf and the Mediterranean.

NEWMAN INDUSTRIES, LTD., have been appointed sole selling agents in the United Kingdom for Franco Tosi and Sisma diesel engines, which, it is stated, are available for early delivery.



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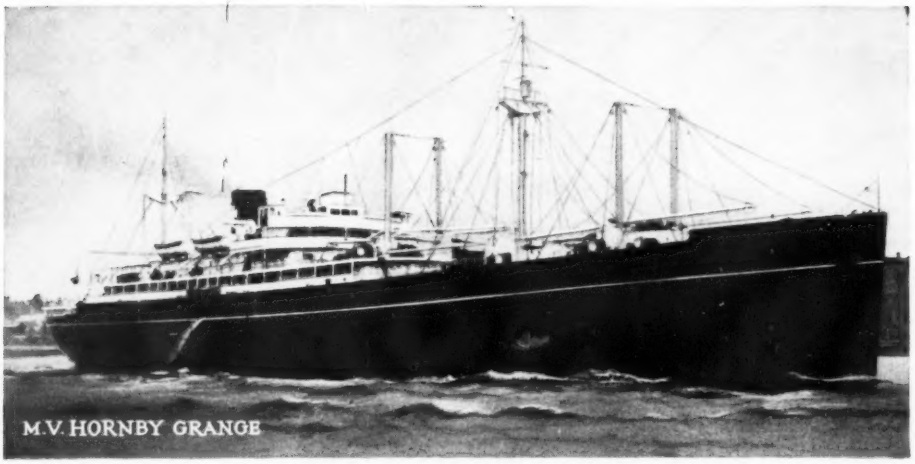
B T-H

Electric Equipment for Marine Service



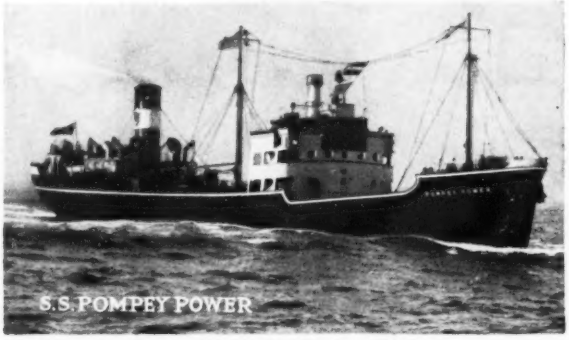
M.V. HORNBY GRANGE

A.C. Auxiliaries

BTH has unique experience in the development of A.C. machinery for use aboard ship. The 1,780-ton collier "Pompey Power" and her sister ship "Pompey Light" both of which went into service in 1949, were the first British ships of their type to have all auxiliaries, including deck machinery, driven by A.C. motors. Alternators and switchgear were also supplied by BTH.

The 10,800-ton cargo liner M.V. "Hornby Grange" was commissioned in 1946. The complete cold air-circulating fan refrigeration system employs seventy-six BTH A.C. motors taking power from two BTH motor-alternator sets. Similar contracts have now been completed for three further ships—M.V. "Corinaldo", S.S. "Cortona" and S.S. "Duquesa".

BTH manufactures :—
Turbo-electric propulsion
Diesel-electric propulsion
Geared turbine propulsion
Electric couplings and gears for geared diesel drives
A.C. or D.C. Auxiliary equipment
Turbo-generator sets
Oil engine-driven generators
Motor and control gear
Mazda lamps and lighting equipment



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NORWEGIAN SHIPPING AND SHIPBUILDING

NEW BUILDING LICENCES : DELIVERY OF THE "BLENHEIM"

By THE SHIPPING WORLD'S Own Correspondent

A QUARTER of 1951 has already elapsed and it is safe to say that the greatest event of the year so far has been the abandonment by the authorities of the policy of refusing currency licences for building abroad. This policy has been much criticised, but it was also acknowledged that there have been difficulties. The delays in granting licences, on the other hand, have cost the industry several millions, and now the day has arrived when Norwegian owners can again start negotiating with their foreign shipbuilding friends, they find in many instances that berths have already been occupied by their competitors. For the time being the authorities are granting licences to practically all who can arrange for payments in foreign currency without any extra burden on Norwegian foreign exchange, what is called "100 per cent self-financing." In many cases the authorities have asked for the sale of old tonnage before a licence has been granted, and this fact accounts for the many sales of Norwegian ships to foreign buyers lately.

German yards have received perhaps the largest number of contracts during 1951 from Norwegian owners. Howaldtswerke, Kiel, alone concluded three contracts, and in the middle of March four more were being negotiated for and will most likely have been concluded by now. Several of the vessels to be built at Howaldtswerke are to be cargo liners, but as far as we know only one will be a tanker, of some 18,000 tons d.w. At Swedish yards negotiations were still being carried on in the middle of March. The Swedish authorities some time ago agreed to let Norwegian owners have the credit the Norwegian authorities demanded if the owners were to receive licences for building several, as many as 16, vessels at Swedish yards. The conditions were to be decided between the yards and the Norwegian owners, without interference from the authorities, and in the main the Swedish yards would be allowed to grant a credit of 70 per cent of the cost of the vessels ordered for a period of seven years. Everything seemed set for an early conclusion of these negotiations, but it was not to be as easy as that. One of the yards said that due to heavy investment after the war, it could not see its way to granting as much as 70 per cent for as long as seven years, and indicated 50 per cent for five years.

Norwegian Freight Control

For some time now the Norwegian Freight Control has been in operation in connection with the carriage of coal from the United States to Norway. The result of this has been that few Norwegian dry-cargo vessels have been left free to compete for the high rates ruling in the open market, and as yet there is not much change in the direction of an early cessation of this state of affairs. It should be noted, however, that the Freight Control operates only in respect of goods whose prices are controlled. Salt, for instance, can be sold freely without referring the retail price to the Price Control Board in every instance, and therefore the ships fixed for carrying salt from the Mediterranean to Norway are paid the market rates of freight. Incidentally, it has been decided to mine more coal on Spitzbergen, but shipments from there will not start until June or July.

Some shipping companies have now produced their balance sheets. For instance the Bergenske Dampskibsselskab reports that some 538,000 tons of cargo were carried in 1950 compared with 565,000 tons the year before. Passengers numbered 182,324 against 181,582 in 1949. On the coastal routes competition has been keener than ever and expenses have continued to mount. On the North Sea route five sailings a week have been maintained during the summer months and the number of passengers carried increased from 41,902 in 1949 to 46,621 last year, which is the largest number carried on this route. The company's income during 1950 amounts to Kr.81.7 mn. and outgoings to Kr.71.1 mn., or 87 per cent of income. The net surplus amounts to Kr.1.8 mn., which will be distributed as follows: 5 per cent dividend Kr.875,000, reserve fund Kr.130,000, taxation reserve Kr.100,000, pension fund Kr.600,000 and bonuses Kr.100,000. A little less than Kr.5.4 mn. has been used to write off ships' value and some Kr.3 mn. to write off other capital equipment. The annual report of this company also contained the news that a new North Sea liner had been ordered at Swan, Hunter & Wigham Richardson, Ltd., Newcastle. She will be a little larger than the present *Venus* and for the first time in the history of the Norwegian North Sea route the main propulsion engine will be a turbine developing some 12,000 h.p., which will give the vessel a speed of 21 knots. Among other innovations may be mentioned a Denny-Brown stabiliser and a cafeteria instead of a dining saloon in the tourist class. Altogether the vessel will carry 120 first and 380 tourist-class passengers. It is expected that the ship will be delivered in good time to take part in the 1953 season.

Employment of Merchant Fleet

The Norwegian Freight Control has computed a table showing how the Norwegian merchant fleet was employed in 1950. Of the dry-cargo fleet some 730,000 tons d.w. were fixed in the open market for single voyages, some 2,055,000 tons d.w. maintained liner services owned by Norwegian owners, while some 1,178,000 tons d.w. were on time charter to foreign companies, or fixed on consecutive voyages. About 85,000 tons d.w. were laid up or being fitted out at various yards. Of the tanker fleet some 246,000 tons d.w. were fixed in the open market for one voyage only, while about 3,252,000 tons d.w. were fixed on time charter or for several consecutive voyages. The table was computed as on December 1, 1950, and included all vessels above 500 tons d.w. Comparing the statistics with those for 1949, it is stated that 51 per cent of the dry-cargo fleet was engaged in liner traffic, compared with 48 per cent a year earlier. While dry-cargo ships fixed on time charter or for consecutive voyages decreased from 33 per cent in 1949 to 29 per cent in 1950, the percentage of the dry-cargo fleet fixed in the open market for single trips remained practically the same for both years. As regards tankers, all vessels fixed for three to four months or less are considered free tankers, of which there were 11.6 per cent on December 1, 1950, compared with 15.4 per cent a year earlier and as much as 18 per cent in August, 1948.

Norwegian Shipbuilding

Some outstanding events in Norwegian shipbuilding have taken place during the first quarter of this year. The Rosenberg yard launched the largest tanker yet to be built in Norway, the *Berge Bergesen*, of 16,200 tons d.w., and just before Easter, Akers Mek. Verksted delivered the new North Sea passenger liner *Blenheim*, built to the order of Fred Olsen & Company, Oslo. The hull of this vessel was built by John I. Thornycroft & Co., Ltd., Southampton, and was taken in tow to Akers Mek. Verksted, Oslo, where the engine has been installed and the vessel fitted out. The *Blenheim* is built to the highest class of Norwegian Veritas and has the following dimensions: length overall 373 ft. 9 in., breadth moulded 53 ft., depth moulded to top deck 29 ft., and to second deck 21 ft. Of about 5,000 tons

gross, the vessel has two complete decks as well as forecastle and an extended bridge deck. In the fore part of the vessel there are two cargo holds served by two large hatches, and aft of the engine rooms is a hold insulated for temperatures down to minus 20 deg. C. This room has been lined with aluminium sheets as in the *Bravore* and *Aunavore*, described in THE SHIPPING WORLD of July 26 last. Aluminium has also been used to a great extent in the superstructure, as all houses above the boat deck, the funnel, masts and all the lifeboats are of aluminium. The vessel is scheduled to take 220 passengers, 100 first, 100 second, and only 20 third class. A Thermotank system heats all cabins and public rooms. The main engine is an Akers-B. & W. 8-cyl. two-stroke, single acting diesel, which on trials gave the ship a speed of 17 knots. A sister ship has been ordered from Akers Mek. Verksted. The hull of this vessel will also be built at Southampton.

Vessels for Great Lakes Trade

Recently Fredriksstad Mek. Verksted launched a handy cargo liner building to the order of Olsen & Ugelstad, Oslo. Soon afterwards the keel of a sister ship was laid. These vessels are of 2,750 tons d.w. and are intended for the company's liner service between Northern Europe and the Great Lakes. The vessels will be equipped with diesel engines of the Götaverken type built by Fredriksstad under licence. Olsen & Ugelstad have placed five contracts at the yard, costing some Kr.45 mn. The three vessels to follow will be of 7,000 tons d.w. and will be similarly engined. The company has as yet not disclosed what trade the larger vessels are being built for, but it is known that they have for some time wanted larger and faster vessels for a fruit line in which they participate from the Mediterranean to Northern Europe; and it may also be that they are looking ahead and building ships for the Great Lakes when the canals up the St. Lawrence waterway have been reconstructed to accommodate larger ships. In addition to the orders from Olsen & Ugelstad, Fredriksstad Mek. Verksted have several other contracts on their order books, totalling 19 ships of just under 200,000 tons d.w., which will keep the yard fully occupied till 1956-57. In addition, eight main diesel engines, totalling 47,600 h.p., are to be built, as well as 27 auxiliary diesel sets, and several of the yard's own steam engines. These large building programmes will, of course, make heavy demands on the steel supply, and to prevent future difficulties Mr. Wilhelmsen, managing director of Fredriksstad M.V., has visited the United States, where he negotiated on behalf of all Norwegian yards. On his return he said that he thought they would obtain enough steel to keep Norwegian yards busy for the years immediately ahead.

Framnæs Mek. Værksted recently published its balance sheet and report for 1950. A total of 119 ships of 350,000 tons gross have been repaired and 109 of these were drydocked, much the same as in 1949. Five vessels were delivered, two diesel ships totalling 6,130 tons gross and three whalecatchers. Two whalecatchers and a tanker of 15,750 tons d.w. are at present being built. In addition two tankers, sister ships to the latter, and two whalecatchers are on order. The first tanker is to be delivered towards the end of 1952. In the meantime it is expected that repair work will diminish due to keen competition from abroad. During the latter part of 1950 deliveries of steel were disappointing and only if deliveries did not deteriorate would the yard be able to keep to schedule as far as its new building programme was concerned. The balance sheet shows a net surplus of Kr.934,000. During 1950 some Kr.11.8 mn. was spent on materials and workers were paid Kr.8.8 mn., while Kr.636,000 went to the administration and Kr.581,000 to taxation.

TRAFFIC entering and leaving the port of Gothenburg amounted to 17,800,000 tons net in 1950, compared with 16,500,000 tons in 1949. A programme of expansion is due to be completed in the course of this year, and a radar installation for the port is planned.

Stanhope Steamship Company

Unprecedented Shipping Demand

THE 16th annual general meeting of the Stanhope Steamship Company, Limited, was held on March 20 in London, Mr. J. A. Billmeir, F.I.C.S. (the chairman), presiding.

In the course of his speech the chairman said:—

During the year the two oldest units in the fleet—the *Stanhope* and *Stanland*—were sold, and the fleet now consists of four tankers and twelve dry cargo ships of an average age of ten years.

Three of the tankers—*Stanmore*, *Stanwell* and *Stanglen*—completed their special survey, and the other vessels have all been efficiently maintained.

Our profit on trading amounts to £482,411, as compared with £664,459 for last year. The provision for surveys required approximately £34,000 less than last year, and management, interest and expenses were lower by £20,000, so that the profit, before charging taxation and depreciation, amounts to £372,833, compared with £500,530 for the previous year. The taxation charged is £45,180; transfer to revenue reserve £15,000 and £245,000 to depreciation of ships.

The dividend on the 5½ per cent preference shares required £12,100 and the proposed final dividend on the ordinary stock, together with the interim dividend paid in July, will make a total distribution of £55,000 to the ordinary shareholders, being the same as last year.

The meeting is, of course, dealing with a financial year which ended six months ago and covered what was undoubtedly a very difficult year for shipping companies generally, but since September a complete transformation has taken place. In November the balloon really went up when this country was suddenly faced with having to import two million tons of coal from the United States of America, followed by other European countries who also found themselves in a similar position. At the same time, merchants throughout the world who had been waiting for lower freight rates rushed to cover their essential needs. In fact, the demand for dry cargo ships today is greater than the oldest among us in shipping can remember.

Scramble for Tonnage

The culmination of these events has resulted in a scramble for tonnage the world over. Not only is there a world shortage of tonnage, but the position is aggravated by the complex nature of employment. Let me give you some instances. Vessels discharge coal from America in South Wales and then load coal again at the same port for Central America. Other vessels are taken on time charter with delivery in Germany, Australia and South America to ballast to Vancouver to load timber for this country, while other vessels are attracted to Germany to load timber for other overseas destinations. Furthermore, vessels load German coal for Pakistan and return from India to this country with another cargo of coal, and recently one of our own ships loaded a cargo of wheat in the Argentine for India, and when this cargo is discharged she proceeds to Karachi to load another cargo of wheat for the Continent. So with all this complex trading there is practically no tonnage available to load our own essential exports.

Rates of freight are today on a sound level and there seems no sign of any change in the near future. Practically the whole of our fleet is now very profitably employed until the end of the present financial year.

Need for Encouragement

I would remind you that we, as a country, are no longer the principal power in world tramp shipping. British shipowners have not been permitted to sell freely to other countries certain of their more uneconomical units, to replace with more modern tonnage, and have watched our foreign friends being permitted to build new vessels in this country and these sales regarded as "exports."

Personally, I feel that British shipowners should have been given more encouragement to build and maintain efficient fleets, which we all know can be regarded as a sound line of defence in times of emergency, and for this reason alone I plead that shipping should be regarded as a special case, both for taxation and replacement, and I can only hope this position will be studied before it is too late.

Our two new diesel vessels should be ready for service by September and should prove valuable additions to the fleet.

Finally, a word with regard to sale of tonnage. It has been our practice to dispose of the older units of the fleet when suitable opportunity occurs, and with the high prices now ruling we are naturally watching this position very closely.

The report was adopted.

MARCONI INTERNATIONAL MARINE COMMUNICATION COMPANY, LTD.

DIVIDEND INCREASED IN JUBILEE YEAR: CONTINUED DEMAND AT HOME AND ABROAD

Sir George H. Nelson on New Apparatus

Sir George Nelson, chairman of the Marconi International Marine Communication Co., Ltd.

THE fifty-first annual general meeting of the Marconi International Marine Communication Company, Ltd., was held on March 20 at Queens House, Kingsway, London, W.C., Sir George H. Nelson, F.C.G.I., M.I.Mech.E., M.I.E.E., the chairman, presiding.

The secretary (Mr. L. J. King, F.C.I.S.) having read the notice convening the meeting and the report of the auditors having been read by Mr. R. Philp, of Messrs. Cooper Brothers & Co., the chairman said: Gentlemen, dealing first with the accounts, the consolidated profit for the year after providing for taxation and making an allocation to depreciation equalisation reserve is £111,702, an increase of £51,702 over the result of the previous year.

Growth of Revenue

From the detailed comparative figures of the profit and loss account it will be seen that there is increased revenue of approximately £157,000 which is partially offset by an increase of £26,700 in expenditure. The amount required for taxation, including a reserve for future liability on the profits of the year, is £160,000 against £45,000 for the previous year, an increase of £115,000, but 1949 had a credit adjustment of £22,500.

A further allocation of £38,500 has been made to depreciation equalisation reserve bringing the total to £225,000, and is made so as to avoid any disproportionate increase in the company's profits arising from capital allowance for taxation purposes being in excess of depreciation provided in the accounts. The additional trading revenue reflects the continued expansion of the company's activities, and I am happy to report that a great deal of our additional revenue arises from our export business.

Expansion of Sales

Dealing now with the activity of your company during 1950, I would say that sales of our wide range of apparatus, radio transmitters and receivers, radio telephone sets and radio navigational aids, including Radiolocators, in both foreign and home markets, are well in excess of the figures for the previous year.

The increase of our marine contract business is evidenced by the fact that the value of apparatus fitted in ships (before depreciation) has increased by some £277,500 during the year, with a consequential higher charge for depreciation as shown by the accounts. Receipts arising from investments are down by approximately £13,600, due in the main to the fact that the year 1949 included profit on the sale of an investment amounting to £10,589. The rest of the consolidated balance-sheet items do not call for special comment.

Jubilee Year Congratulations

In my speech to you last year I drew your attention to the fact that we were celebrating our jubilee of 50 years of technical endeavour and service in the cause of "safety at sea." It is appropriate and gratifying, therefore, that, as a result of these figures I can recommend to you for approval that the final dividend be 7½ per cent, making, with the interim, a total of 10 per cent for the year, which is 2½ per cent greater than that paid during the last 12 years.

Before I give you a brief summary of the company's activities during the past year, I should like to pay warm tribute to the company's staff, both afloat and ashore, whose work and loyal service I have had the pleasure and satisfaction of seeing over a wide field during my recent tour round the world. They have shouldered a heavy burden, both on shore and at sea, and their efforts have in no small way contributed to the satisfactory financial position which you now see before you.

International Tributes

We are justly proud of being the world's oldest established marine radio operating company, and we felt greatly honoured at our Jubilee Celebrations by the attendance at our various functions of so brilliant an array, including members of the diplomatic corps, Ministers of the Crown, and our good friends who sail their ships on the seven seas of the world. Hundreds of letters of congratulation were received from people quite unconnected with our company, some of them enclosing photographs and old mementos of the early days of wireless.

This wonderful recognition of the work of our company in the past will be an ever-present and powerful incentive to even greater efforts in the future. I am happy to say that the demand for our equipment continues to reflect both its high standard of reliability and performance and the virility of the shipping industry.

Radiolocator Mark IV

We are still adding to our range of equipment to meet the requirements both of our clients and of international and national regulations in the fields of communications and navigational aids. Among these I would particularly like to mention our new Radiolocator Mark IV. Many years of experience with all the resources of our group behind us have enabled us to produce marine radar equipment to meet the requirements of the Admiralty specification, and of the real needs of the merchant service and fishing fleets.

Two years ago, as a result of searching sea tests and continual observation under practical sea conditions on a number of trial models over a long period, we introduced our Mark III Radiolocator to the marine market. This equipment has now been installed on a large number of British and foreign vessels, and has proved itself incomparably better than any other set on the market. But we were not content to rest on our laurels. Our technicians have now developed a new model—the Mark IV—which, while retaining all the good qualities of its predecessors, gives longer range and lends itself to more economical manufacture. As a result of very successful prototype tests of this new member of our Radiolocator family, we have placed stock orders for

(*Continued on page* 305)

SWEDISH SHIPPING AND SHIPBUILDING

COAL IMPORT ARRANGEMENTS : THREATENED SHORTAGE OF STEEL

By THE SHIPPING WORLD'S Own Correspondent

THE DIFFICULTY of obtaining suitable tonnage in the open market for the transport of 600,000 tons of urgently needed coal from the U.S.A. to Sweden has prompted the Government to request the Swedish Shipowners' Association to arrange for transport with Swedish vessels. According to a plan adopted by the Swedish Shipowners' Association on February 19, the members of the Association agreed to carry the 600,000 tons within this year. The *Svenske, Sjöfartstidning*, which is the mouthpiece of the Swedish Shipowners' Association, stated that for every dry-cargo vessel of non-specialised type, about one-third of its deadweight tonnage must be reserved for coal cargoes by the owner. Vessels of less than 2,750 tons d.w. are exempted. An average ceiling freight rate of Kr.37.50 has been agreed, which, in view of the much higher rates in the open market, means a loss of about Kr.50 per ton, varying with the size of the vessel.

The Freight Market

The movement of timber from the Baltic to the United Kingdom and Continental ports is on the increase. Fixtures include 100 standards from Vastervik and Norrkoping to Grangemouth at 175s. and 200 stds. from Kotka to Creeksea, free discharge, at 160s., whereas 200 stds. Gothenburg/London has been fixed at 185s. for May. For August loading a vessel secured 200s. for 647 stds. from Veitsiluoto to Portsmouth. French charterers are in the market for several cargoes, and German tonnage has been taken from lower zone Finland to U.K. east coast. The ore market is reported quiet and coal business also remains inactive and hesitant, pending the return of Swedish negotiators from Poland. Large quantities are sold, however, and ready for shipment to Lake Värnern ports at 24:50 kronor, and larger cargoes are also noted for ports in Middle Sweden during March at Kr.16 to 17. From Emden/Weser a number of handy sized vessels have been taken with anthracite to West Sweden at Kr.16. There is still little demand for tonnage in the open market for U.K./Sweden, some small vessels having been taken from Scotland to West Sweden at Kr.17. About 2,000 tons of coal from Holland to Gothenburg/Stockholm was fixed at Kr.15 and tonnage of the same size is sought for April.

The Swedish Sailing Ship Owners' Association has demanded higher rates in order to compensate for continuously rising costs. Several shipbrokers were criticised for trying to "import" smaller German vessels for the Swedish coastal trade. The meeting further protested against licences being given to foreign vessels for inland traffic by the Swedish Board of Trade. As from July builders and owners of vessels with a maximum tonnage of 500 tons will be granted loans in advance up to 70 per cent of the vessel's value; the period of amortisation is to be prolonged from 10 to 15 years, the first year being free of amortisation.

Port Conditions

A strike among the dock workers which started at Gothenburg spread like a fire to Uddevalla and Stockholm. It was of only ten days duration, but a rather costly affair for all parties. However, Gothenburg looks ahead with great confidence after a record-breaking year with 17.78 mn. tons and 11,650 vessels arriving and departing. This busy port now contemplates installing a port radar system and it will probably be the first Scandinavian port in possession of such facilities. The director of the Gothenburg Harbour Board is to visit England to study similar installations.

The Government has licensed Rederi A/B Clipper, of Malmö, to take the motorship *Stella Polaris* from Bergenske Dampskibsselskab in exchange for a 16,000 tons d.w. tanker, which will be delivered by Kockum in October, 1952. The payment will be arranged as a transfer of the well-known cruising liner to the Swedish buyer at a price of Kr. 4.5 mn.; Bergenske Dampskibsselskab further takes over the liability to pay Kockum Kr.4,950,000, the balance of Kr.550,000 to be paid when the *Stella Polaris* is transferred. She will ply for the new Swedish owner this autumn between New York, Havana and Mexico in combination with tourist cruises.

The question of arming Swedish vessels at a cost of about Kr.200 mn. was raised recently by the president of the Swedish Ships' Officers' Association, Captain Nils Akesson, during a meeting of the Swedish Navy League. This sum was considered to be the lowest which would barely suffice to furnish each vessel with two or three guns, the training of personnel, etc., requiring supplementary funds. Taking into consideration the fact that a modern vessel costs about Kr.10 mn., and that lack of adequate armament may result in shipping losses far exceeding the expenditure proposed, the sum quoted is a mere trifle, argued Mr. Akesson, who further maintained that Sweden cannot afford to lose 40 or 50 vessels only because of negligence and lack of armament.

Steel from Western Germany

Within the terms of the general trade agreement between Germany and Sweden, the steel mills of Western Germany have agreed to deliver their products to Sweden during the first quarter of the year at the same price as that quoted by the Belgian producers at the beginning of January. For the rest of the year the steelworks will apply the current prices of the Belgians and ignore the peak prices quoted on the world market. The total import of steel from Western Germany as stipulated in the trade agreement amounts to 210,000 tons. According to *Göteborgs Handels- och Sjöfartstidning*, the Swedish shipbuilding yards will receive only 35,000 tons in the form of ship plates and sections, which is a bare minimum in view of the great demand. The Swedish Shipbuilders' Association has already taken steps to guarantee a fair distribution of these deliveries, the price of which is as high as $125 per ton, or Kr.650 in comparison with Kr.450 for Swedish plate. Swedish shipbuilders are doubtful whether their present output can be maintained.

Ship plates and sections are almost impossible to purchase on the open market. Rolling mills in England have cut down their deliveries to a minimum of about 50,000 tons for Sweden, and the United States is now buying all the steel available in Europe. A Danish rolling mill reached an agreement with Sweden to deliver about 20,000 tons at a price of Kr.400 per ton, but has recently cancelled this business. There is a great disappointment among the shipbuilders about the Domnarvet Ironworks. In spite of the fact that this large steel mill has the potentiality of supplying most of the Swedish yards with plates, it has not been extended to meet requirements. The 30,000 tons coming from Domnarvet is far below actual needs. Obviously the soaring quotations for steel deliveries will have their influence on shipbuilding and result in higher prices for new vessels. The commercial weekly *Affärsvärlden* estimates Sweden's needs at 150,000 tons, compared with 90,000 tons yearly before the war. During 1927-29 the c.i.f. price was on the average Kr.130 per ton, falling to Kr.80 in 1931. Shortly before the last war the prices stood at Kr.190 per ton c.i.f., and the c.i.f. price is thus now 3½ times higher.

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Famous Ships from a Famous Yard

The Motor Tanker "HOEGH ARROW", deadweight 22,808 tons, is the largest vessel built on the River Wear up to the time of her completion during November, 1950.
The vessel is of mainly welded design and has corrugated longtitudinal and transverse bulkheads, constructed on patented system, which divide the cargo space into seven centre and fourteen wing tanks. In addition there are two pump rooms, each containing two cargo pumps. The machinery is aft and forward there is a cargo hold above the deep tank.
The propelling machinery consists of a Doxford Six-cylinder opposed piston oil engine.
The vessel was built in Deptford Yard by Sir James Laing & Sons Ltd.

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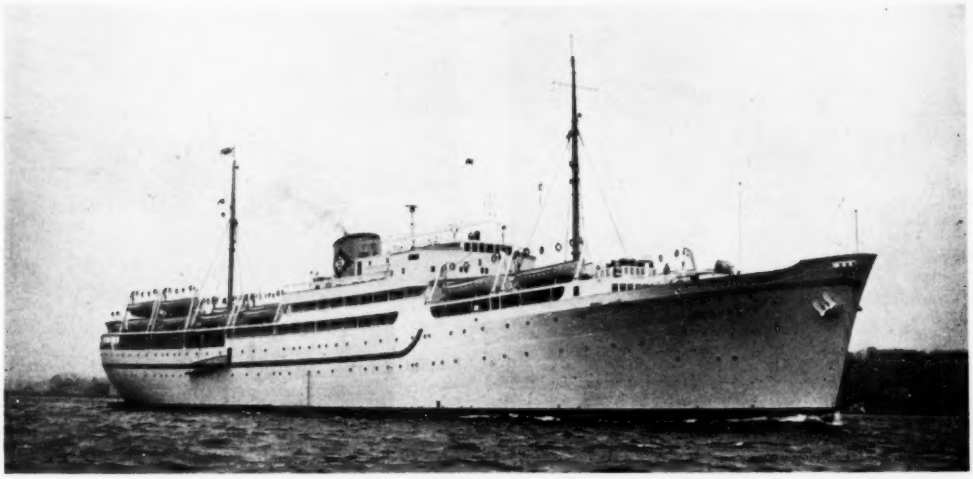


NORWEGIAN PASSENGER VESSEL "SKAUBRYN"

MOTORSHIP CHARTERED BY THE INTERNATIONAL REFUGEE ORGANISATION

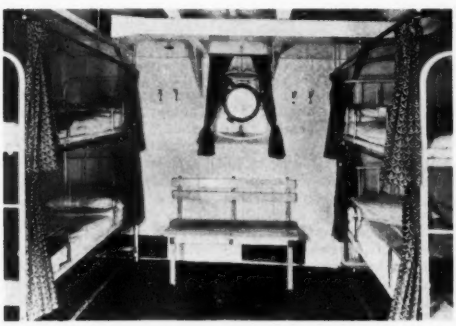
By a Special Correspondent

ALTHOUGH not originally ordered as an emigrant carrier, the Norwegian motorship *Skaubryn* has entered service with the International Refugee Organisation carrying 1,221 displaced European persons from Bremen to Australia. When the contract for the *Skaubryn* was placed by I.M. Skaugen, of Oslo, with Oresundsvarvet A/B, Landskrona, the design was for that of a modern open shelterdeck cargo liner, and she was launched as such in October of last year. Unsuitable for the purpose of carrying refugees, for which service she had been subsequently chartered by the International Refugee Organisation, she was towed to Kiel, where Howaldtswerke A.G. fitted her out and equipped the vessel to meet her new requirements. The work entailed the building of two decks under the main deck, one complete deck above the shelter deck and the lengthening of the boat and bridge decks.

With a top speed of over 17 knots she can complete the round trip to Australia through the Suez Canal in 58 days. The vessel is at present chartered for four voyages and up until the time of completion no decision had been taken as to her future employment. The *Skaubryn* is of about 9,700 tons gross and has dimensions of 458 ft. 5 in. length o.a., 430 ft. b.p., 57 ft. breadth moulded, 38 ft. depth moulded to main deck (A deck) and 29 ft. depth moulded to B deck. Half of the passengers are carried in two, six and eight berth cabins, while the remainder are accommodated in dormitories.

In view of the large number of passengers carried for a vessel of her size special attention has been given to the arrangement of the galley. Situated on D deck forward of a dining saloon, it is connected by a food service lift to a large dining saloon on C deck immediately above, the children's dining saloon on B deck, the crew's messroom on the promenade deck, and the officers' and captain's dining saloons on the boat deck. The galley is equipped with modern equipment, all in stainless steel, including infra-red grills which cut frying time to a few minutes. One of the frying machines has a capacity of 37,000 hamburgers a day.

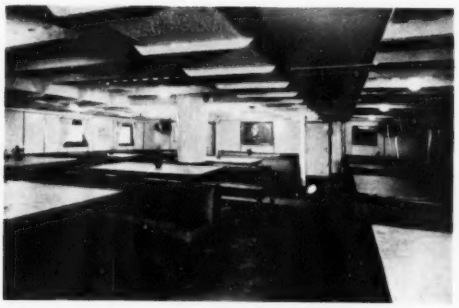
Meals in the three passenger dining saloons, the officers' dining saloon and the crew's messroom are served on the cafeteria system. This practice was adopted in



Cabin for 4 men

One of the cafeteria dining saloons

Captain's saloon



One of the lounges

the *Skaugum*, the first vessel of the same type owned by I.M. Skaugen, which has now transported some 23,000 persons in just over two years. Experience gained in the *Skaugum* has been incorporated in the design of the dining saloons. The containers in the bar disks can hold enough food in hot and cold dishes to feed all the passengers without refilling. All the counters are of stainless steel.

Accommodation for 1,220

There is accommodation in the *Skaubryn* for some 1,220 emigrants, half of the passengers being accommodated in cabins and the rest in dormitories. Both cabins and dormitories are mechanically ventilated and heating is provided on the Thermotank system. All the dining saloons and lounges are air conditioned. On C deck there is the large dining saloon already mentioned, which has seating arrangements for 232 passengers. This dining saloon is fitted with false windows covering multicoloured pictures, providing the room with a cheering appearance. The rest of C deck is taken up by passengers' cabins and dormitories. On B deck, immediately above the large dining saloon, there is situated the children's dining room and playroom. These two rooms are divided by a half height wall decorated with paintings of animals, etc., giving a gay atmosphere to both rooms. In one corner of the playroom is built a miniature bridge, with steering wheel, engine telegraph stand and other models. As with C deck the rest of the space on B deck is devoted to passengers' cabins and dormitories.

The space on the main deck is mainly used for cabins and dormitories, although the hospital is sited aft on this deck. The hospital is divided into sick wards, an operating theatre and a consulting room. A total of 78 beds is provided in the hospital, together with a set of dental equipment. There are also a children's hospital and a diet and formula kitchen. Aft of the hospital there is arranged part of the crew's quarters. Most of the crew is accommodated in single-berth cabins. On the promenade deck above there is situated a large lounge. This lounge is used as a bar, though only soft drinks and beer are served. Aft of the lounge there is the crew's messroom, and farther aft on the starboard side there are cabins for the rest of the crew, while, on the port side, cabins for the nurses and stewardesses are situated. Farther aft still there is a larger lounge which can be used for lectures, as a cinema or as a concert or dance hall. The crew's dayroom is arranged on the poop deck, while the cabins and messroom for the officers and dining saloon for the captain and first-class passengers are arranged on the boat deck. Accommodation for the first-class passengers is found on the bridge deck. Fifteen stainless steel cold water fountains are installed in halls and passageways throughout the vessel, and an additional facility for the comfort and entertainment of the passengers is a large swimming pool.

The galley

Officers' mess

Other Amenities

In addition to the dining saloon on D deck, which has a seating capacity of 136 passengers and to which reference has already been made, there is arranged forward a recreation room for men and a laundry. The laundry can deal with 50,000 articles on a round trip. Aft of the engine room on the same deck there is luggage space, while farther aft are arranged the hairdressing saloon, a small laundry with an adjoining drying room, a ladies' rest and recreation room, and a ladies' workroom equipped with 12 electric irons and some sewing machines. Below D deck are provision stores, a refrigerated space of 10,000 cu. ft. capacity, and fresh water and oil tanks. Altogether a total of 2,000 tons of fresh water and 1,700 tons of bunker oil can be carried.

The vessel complies with the safety regulations of the

Left: **Refugees boarding the ship at Nordenham.** *Centre:* **Children playing on the miniature bridge in the children's playroom.** *Right:* **A family cabin**

1948 international convention, and it is claimed that she is the first passenger ship in Europe to be built to this standard. To conform to the regulations it was necessary for more bulkheads to be installed, which meant the separation of the bar from the lounge on the promenade deck. Fireproof paint has been used throughout and a sprinkler alarm system warns the officers on watch of any outbreak of fire. The curtains in the cabins are also of fireproof material. An Ardente public address system has been fitted, which is controlled from the radio room and can be used for the transmission of news as well as music.

Navigational equipment on board is extensive and includes a gyro-compass and gyro-pilot, radar, Decca Navigator, echo sounder, electric log and a direction finder. The radio room is equipped with a short and long wave transmitter and receiver as well as a powerful wireless-telephone installation. A main engine revolution indicator is fitted on the navigating bridge. Access to the luggage space is by two hatches, each hatch being served by two derricks and two electric winches. For emergency use there are 16 lifeboats, two of them motor driven, which will carry 1,339 persons. One of the motor-driven lifeboats is equipped with a radio transmitter and receiver. In addition to the lifeboats there are 17 rafts.

Supplied by A/B Gotaverken, of Gothenburg, the main engine comprises a two-stroke double-acting type diesel. It has nine cylinders of 680 mm. bore and 1,500 mm. stroke, and at 112 revolutions per minute the engine develops 8,000 i.h.p., equivalent to 6,500 b.h.p. At a service speed of 16 knots the engine will use 24 tons of diesel oil, while at maximum speed, 17½ knots, the consumption will be increased by 10 per cent. Two Gotaverken 195 kW auxiliaries are installed together with two of the B. & W. type, each with an output of 300 kW. There are also fitted in the engine room two boilers, one of 25 sq. m. and the other of 180 sq. m. heating surface, which provide steam for the laundries and for the Thermotank system.

Herr A. Westphal (*left*), **managing director of Howaldtswerke, and Dr. Klehn, technical director, on the bridge of the "Skaubryn"**

MARCONI INTERNATIONAL MARINE COMMUNICATION CO., LTD.

(*Continued from page* 301)

large-scale production to meet the great demand which this new equipment has created.

Since I last spoke of our depot service organisation, we have continued to improve our premises and services at the ports, and to establish new depots where these were required to meet the needs of our clients.

Overseas Activities

Expansion of shipping business in Pakistan necessitated the establishment of a new and fully equipped depot at Karachi. We have also established a new depot at Mombasa to improve our African and Far East services.

The cordial relations between our clients and our company which exist in this country and abroad are typified by our recent experience in Cape Town. A spreading fire reached and utterly destroyed the new depot premises we had recently built there in conjunction with our associated company. Marconi (South Africa), Ltd., and one of our shipping clients immediately offered us temporary accommodation, and insisted on housing us as its guests. This was a generous gesture which we much appreciated.

From January 1 this year, our registered office has returned to our old home at Marconi House in the Strand, where I feel sure that many of our old clients will be pleased to find us reinstalled.

Cordial Relations Maintained

In conclusion, I am both proud and happy to reiterate that our relations with the Ministry of Transport, the General Post Office, the shipping organisations and the shipowners and with the Radio Officers' Union continue to be most cordial. The understanding which exists between us and the co-operation which we receive from them all contributes considerably towards the efficient and speedy solution of all our mutual problems.

The report and accounts were unanimously adopted; the proposed final dividend of 7½ per cent, less tax, making with the interim dividend already paid, 10 per cent, less tax, for the year, was approved; the retiring director, Sir Edward Crowe, K.C.M.G., was re-elected and the remuneration of the auditors, Messrs. Cooper Brothers & Co., was fixed.

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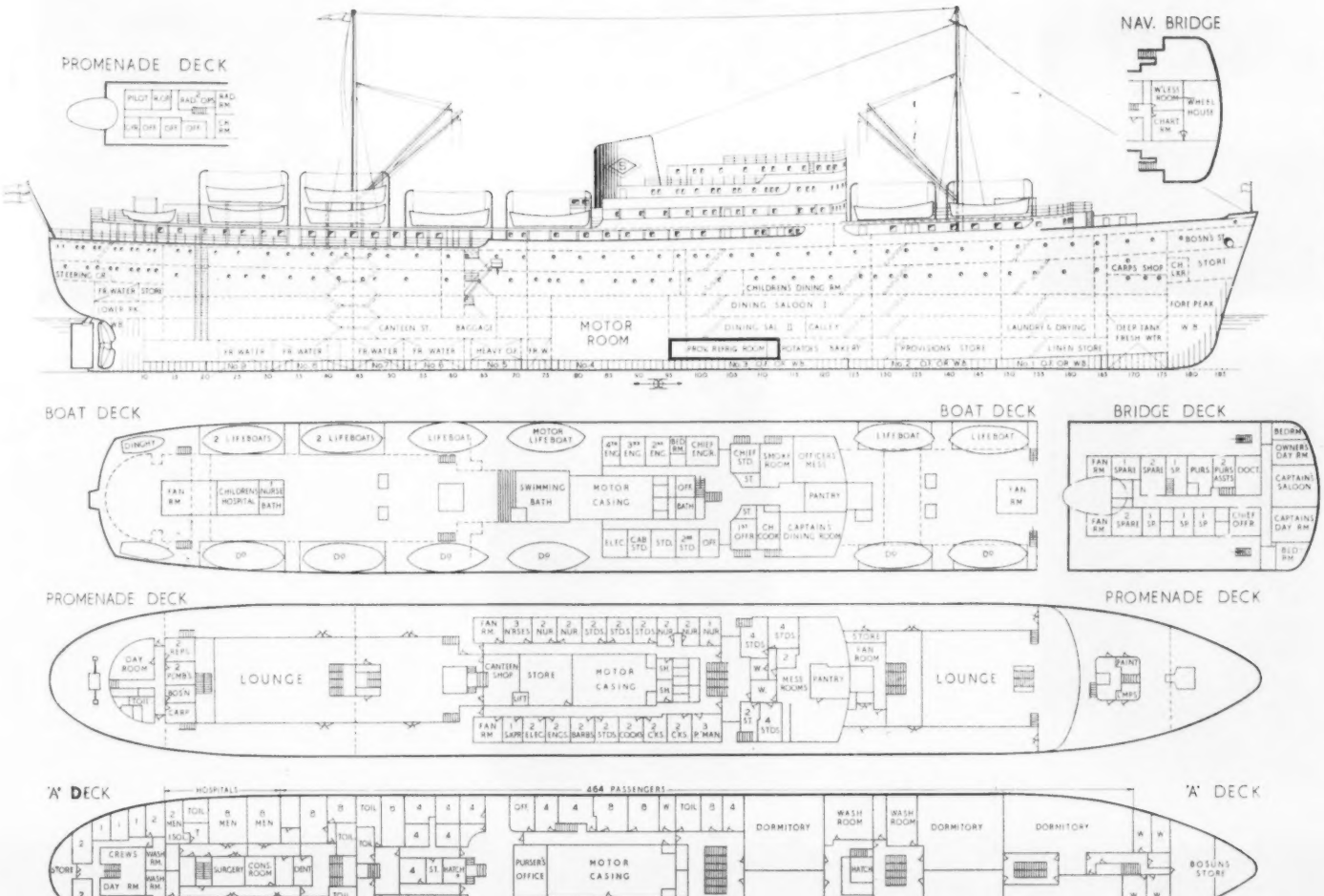

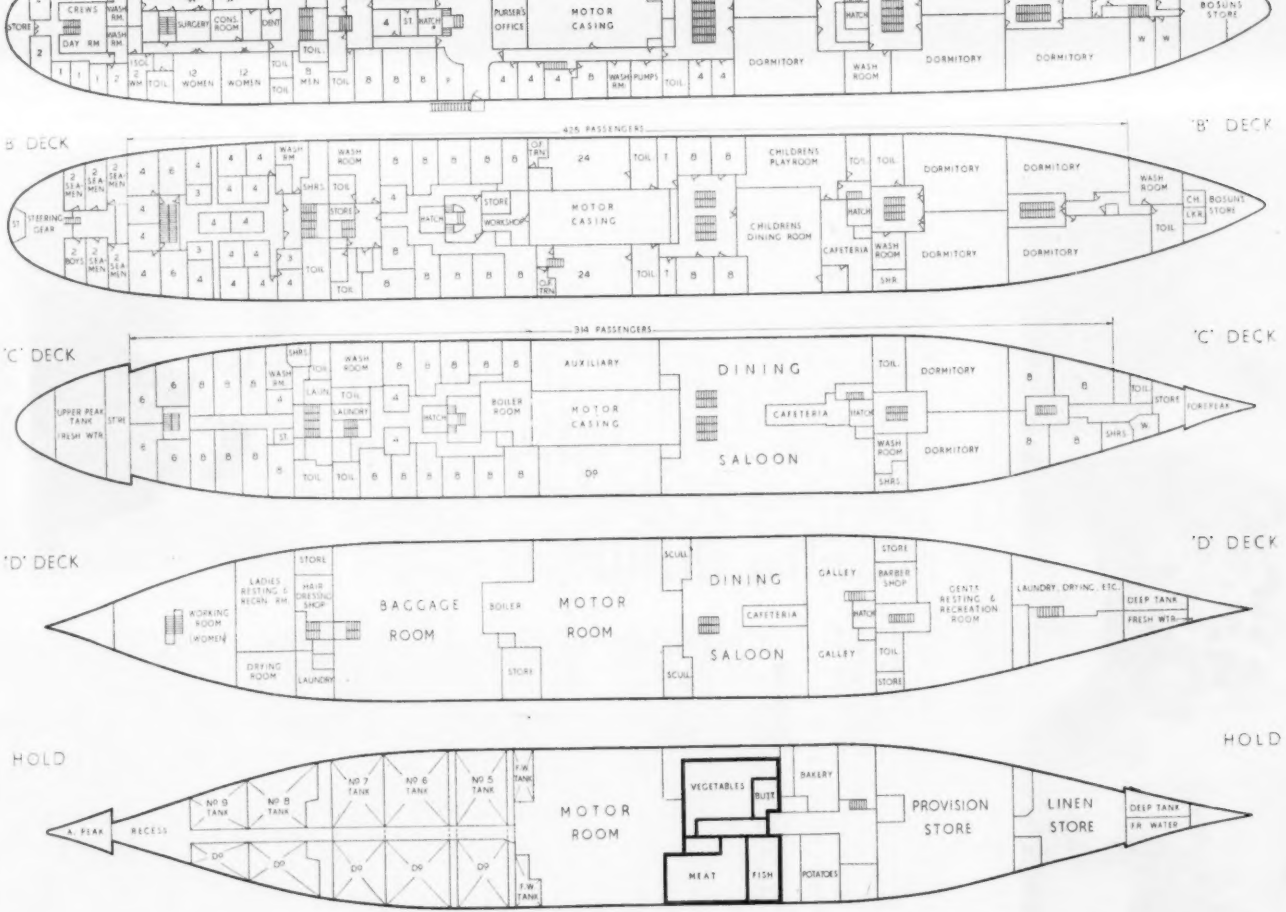

General arrangement of the Norwegian passenger motorship "Skaubryn," chartered by the International Refugee Organisation

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A Swedish Port Programme

Ten-Year Plans for Improvement and Extension

By a Special Correspondent

THE NEED for a comprehensive programme of improvement and development for the Swedish ports has long been felt. The Board of Communications in 1944 accordingly entrusted a group of specialists with the task of studying the possibilities of a farsighted port policy. These surveys have resulted in a series of comprehensive and detailed statements which are of special interest as they give a good picture of Swedish port construction projects and estimated investment as far ahead as 1960.

Extensive Development Schemes

In 1947 the quays of Sweden's city ports had a total length of 411,735 ft., of which one-third belong to the large ports, i.e. Gothenburg, Stockholm and Malmö. Divided according to traffic areas, 25 per cent of these quays are owned by ports along the Gulf of Bothnia, 27 per cent by ports of the Swedish east coast, 21 per cent by south coast ports, 17 per cent by west coast ports and 10 per cent by lake ports. The programme of works now proposed and partly embarked on includes the construction of 107,726 ft. of quays, a 27 per cent increase, and the reconstruction of 24,735 ft. of quays. Storage facilities and crane equipment, etc., are included in these schemes. Stockholm will get 32,299 ft. of new quays, which means a 52 per cent increase of berthing space, Malmö's share is 9,000 ft. of quay, while the quays of Gothenburg are to be extended by about 10,000 ft., i.e. an increase of 22 per cent. In order to provide deep-water accommodation for the increasing number of ocean-going vessels several "ocean quays" will be constructed for vessels with a draught of 30 ft. Stockholm's deep-water accommodation will thus be extended by 13,250 ft., as a heavy increase in overseas export and import traffic is expected; whereas 8,290 ft. additional berthing space for large ocean-going vessels is considered sufficient for Gothenburg. The cost of these extensive development schemes, which are to be completed in 1960, is estimated at Kr.40 mn. per year, and the total amounts to Kr.440 mn., of which at least Kr.40 mn. will be expended on crane equipment.

New Port Tariff Regulations

The port tariff policy has also been investigated and the Board of Trade has submitted a proposal for new port tariff regulations. In principle all parties agree that port revenues should be set aside solely for the immediate needs of the port. Carriers will not under any circumstances be entitled to reductions or exemptions from dues. However, the port authorities have the right to apply certain rebates in connection with larger movements of goods. The Swedish ports are in most cases independent enterprises, only to a limited extent controlled by the State. They have no common organisation, nor do they possess a direct administrative body to take care of their interests. Some of their urgent matters are handled by the Department of Communications, others by the Department of National Defence and the Department of Justice, while the Board of Trade also has many responsibilities in this connection. The result is a confusion which makes it difficult to determine the financial needs of respective port projects and the port survey now stresses the necessity of a far-reaching co-ordination under one central agency.

Israel Expands Merchant Fleet

Continuing its rapid expansion, the Zim Navigation Company, of Israel, will put four grain-carrying ships into service this year. One, the 12,000-tons *Elatha*, has already been acquired. Zim has also ordered two new fruit ships in Holland, and the first of these will be launched at Rotterdam early next month. Negotiations have been in progress for some time regarding the purchase of a large passenger liner from a British firm. This ship is to be used on the Haifa-New York service. Though the British Treasury has given its sanction, the purchase still needs Israel Ministry of Finance approval for the expenditure of foreign currency involved. Zim at present owns or has a direct interest in 19 ships, aggregating 91,500 tons, of which four are passenger liners, five are large freighters on Atlantic service, and the remainder are smaller cargo vessels, mostly serving the European trade. During 1950, Zim had an operating income of £1.5,000,000, and during the year nearly 73,000 passengers were carried, of which some 55,000 were immigrants.

ROUND THE SHIPYARDS

Work in Progess in Northern Ireland

By THE SHIPPING WORLD'S Own Correspondent

ONE OF the most important events of the year at Belfast will take place on April 5 with the launch of the Union-Castle liner *Rhodesia Castle* (17,300 tons gross), the first of two ships of this class placed with Harland & Wolff, Ltd., in February, 1950. The second, also building in the Musgrave Yard, is due to be launched in June and will be named *Kenya Castle*. Both ships are generally similar to the *Bloemfontein Castle*, the last ship built at Belfast for the round-Africa service, but will not be diesel-engined. Harland & Wolff, Ltd., have completed the oil tanker *Ringerd*, of 12,000 tons d.w., for Mr. Olaf Ringdal, Oslo, and have so delivered all the vessels in last year's launching programme. They are also fitting out the Argentine whale factory ship *Juan Peron* and the oil tankers *Dalfonn* and *Orkdal*, the first named tanker being of 24,000 tons d.w.

Orders for Engines

No further ship orders for the firm have been reported during the past few weeks but they are to supply the engines for a number of vessels to be built elsewhere. These vessels include a cargo motorship of 10,000 tons d.w. for the Larrinaga Steamship Co., Ltd., placed with William Pickersgill & Sons, Ltd., and a motor tanker 18,000 tons d.w. for Mr. Iver Bugge, of Larvik, to be laid down by the Caledon Shipbuilding & Engineering Co., Ltd., at Dundee. A further contract of this kind is for a diesel engine for a Booth liner of 7,500 tons d.w. also secured by Wm. Pickersgill & Sons, Ltd.

The Railway Executive's motorship *Cambria*, from the Holyhead-Dunlaoghaire service, is due to be taken in hand today at Belfast, where she was built in 1948, for the installation of Denny-Brown stabilisers. This will be the first time that Harland & Wolff, Ltd., have carried out work of this kind, but stabilisers have also been ordered for the liner placed by the P. & O. and for a cross-channel motorship for the Coast Lines, Ltd. The *Cambria's* sistership, the *Hibernia*, is due to arrive at Belfast in May for similar conversion.

The report of the Court of Inquiry into the Belfast shipyard accident on January 31, in which 18 men lost their lives, has recommended to the Ministry of Labour a code of practice for ensuring the strength and security of gangways. It includes the keeping of registers of the history of a gangway with inspections on construction, after five years and thereafter at two yearly intervals.

Thorncyroft Launch for Royal Mail Lines

A motor launch for harbour service at Rio de Janeiro has been completed at the Hampton-on-Thames yard of John I. Thornycroft & Co., Ltd., for Royal Mail Lines, Ltd. Named *Una*, the launch has a length of 38 ft., a beam of 8 ft. and a draught of about 2 ft. 9 in. Of round bilge form, the hull is built of double skin mahogany diagonally planked on steam bent timbers of English oak and is sheathed in Muntz metal to just above the waterline. To protect the woodwork, all timber is treated with "Cuprinol" preservative. A cockpit is arranged aft, furnished with 12 Lloyd Loom chairs. The fore part of the launch is occupied by a cabin in which there is a hinged table and locker seats on each side. The wheelhouse is arranged amidships and is provided with hinge-up windows in the fore part and aft, so that there is good all-round visibility. Aft of the wheelhouse on the port side there is a Blake Baby type pump W.C. The engine is a Thornycroft type RNR/6 six-cylinder diesel engine. The unit, fitted with reverse and 2:1 reduction gear, is capable of developing 90 b.h.p. at 1,600 r.p.m. maximum, although for continuous running the engine will develop about 70 h.p. at 1,500 r.p.m. Special attention has been paid to the ventilation of the enclosed accommodation to add to the comfort of the passengers. The launch has a maximum speed of about 12 knots.

Electrical Installations for Ships—VIII

THE MARINE ENGINEER'S VIEWPOINT

By H. J. D. THOMPSON

IN COMPARING our present civilisation with that of Ancient Greece, it has been said that in this age of specialisation we have lost the Hellenic capacity for seeing things as a whole. The papers and discussions on our subject well illustrate this deficiency. The electrical marine specialist's concentration on reducing the capital and maintenance costs of electrics may in some cases present gains on the electrical swings which on a fuller analysis are more than offset by losses on the engineering and naval architectural roundabouts. This controversy must be presented from the shipowner's broad viewpoint, seeing things as a whole, and must not be confined to a restricted electrical issue.

The validity of the requirements of speed variation for auxiliaries (except forced draught fans, refrigeration compressors and deck machinery) is somewhat hesitatingly challenged by the A.C. enthusiasts, but subsequent suggestions for two- and four-speed squirrel cage motors, and the use of slip clutches and bypassing, suggests that the A.C. sponsors are quite aware of the practical advantages of speed variation for pumps and fans. Unfortunately, the economic effect of these innovations on engine and hull costs is not pursued, and it is necessary to present this missing picture to shipowners to assist them in the selection of the system of electrical distribution to be adopted in their specification for the liner.

In the writer's opinion, if the overall cost aspect is taken, no case can be made out for a complete A.C. installation, and it is doubtful if many sound cases can be made out in favour of a composite A.C./D.C. installation for a large liner with a speed in excess of 25 knots. Moreover the larger the size of the liner the greater, on balance, appear the advantages of retaining the complete D.C. installation.

The advantages and disadvantages of A.C. drives on the sectionalised costs of (1) engine, (2) hull and (3) electrical distribution can for the most part be resolved in a sufficiently representative manner to enable a right decision to be made in favour of the complete A.C. or the complete D.C. system. It is, however, more difficult to indicate just how far the A.C. side can be profitably developed in a composite installation to compete with an entirely D.C. system. In a fine analysis the speed of the liner will be a determining factor.

Opinions on this broad subject are bound to differ in the endeavour to obtain the best from both systems without increasing capital costs. Some engineering superintendents definitely prefer to have one system rather than to mix A.C. and D.C. The cost of electrical maintenance will also be an influencing factor, and engineers who have had the supervision of electrical ship repairs will have experienced some D.C. installations where maintenance costs are small and sister liners where for some obscure reasons rewinds are more frequent and upkeep at times substantial.

Analysis of Sectionalised Costs

The normal shipyard demarcation for equipment will be retained in the analysis of the sectionalised hull, engine and electrical costs that follows in this and subsequent articles. The engineer's aspect will be covered first.

In order to make the maximum use of low priced squirrel cage motors, the American practice of using a bypass on the pump discharge back to the suction has received considerable support. This innovation is substantially cheaper than using slip clutches for fine speed control, but it is far less satisfactory from an operational point of view. To adopt bypassing as a standard procedure is not the best engineering, and definitely places the A.C. drive on a lower standard than the D.C.

In some cases it would introduce turbulence troubles with attendant vibration and noise, shorter life for the impellers, bearings, etc., and increased mechanical maintenance, besides additional cost for sound-proofing the engine room. In every case it would increase running costs. If one auxiliary only was involved this could be overlooked, but as many units are affected the cumulative effect is of consequence. Moreover, it may eliminate the use of pumps of a previous standard in the fleet where the power-capacity curve is not appropriate for throttling. If the motor is selected on a basis of power required for normal operation, throttling the pump discharge below a certain minimum overloads the motor. Thus the selection of the A.C. motor used on a throttling pump system requires careful attention, and adherence to past selection may bring trouble. On the other hand, if the motor is selected for full output the power factor of an A.C. motor falls on normal output, say to 0.7, and on further reducing the output it will be as unsatisfactory as 0.5 lagging or even 0.25, according to the amount of reduction.

The capacities of pumps installed are usually selected to be suitable for the extra all-out speed conditions required to make up for delays due to foul weather and late departure from ports. The normal running conditions usually approximate 90 per cent of the full capacity of the pump. The pump capacity varies as the speed, its head varies as the square of the speed, but the power as the cube of the speed. A typical circulating pump requiring a 40 b.h.p., 1,000 r.p.m. drive for full output of 1,000 gallons would approximate to 29½ b.h.p. only at 900 r.p.m. for 900 gallons (normal running). Suppose it is operated for standby service or is adjusted to suit manoeuvring or one of the variables mentioned in Article IV to give an amount of 700 gallons, the D.C. drive power would fall to approximately 13 b.h.p.

With an A.C. drive and bypass arrangements the corresponding A.C. horsepowers approximately to 40, 31½ and 16½ respectively with power factors of 0.82, 0.7 and 0.5. The operational costs for this pump unit installed on a passenger liner steaming 4,800 hours per annum with 90 per cent of this time on normal pump output, 5 per cent on full pump output and 5 per cent on reduced pump output, with electricity costs at 1d. per unit, are in favour of the D.C. drive, which effects a saving of £31 per annum.

Throttling Arrangements

The A.C. enthusiasts also propose throttling arrangements for all pumps requiring variable outputs and in addition for many important ventilation fans. Thus on an *Empress of Britain* with 80 engine and boiler room auxiliaries aggregating 3,033 h.p. and 143 ventilating units totalling 641 h.p., with electrical generation at ¾d. per unit, an additional running cost of £600 per annum would be occasioned by installing A.C. drives with bypassing for important pumps and fans. On a *Queen Mary*, with 114 engine and boiler room auxiliaries aggregating 8,597 h.p. and 254 ventilating units totalling 1,307 h.p., with electricity costs at ¾d. per unit, £1,200 would be a minimum additional annual cost. In the lifetime of the liner £30,000 would make a substantial contribution towards the cost of rewinds or D.C. spare gear. Thus the larger the liner, the more adverse the aspect for A.C. to the engineering running costs.

Moreover the cost of fitting bypassing has been ignored. As an indication, with a 3-in. discharge the valves, tee pieces, piping and fitting would cost the marine engineering side a minimum of £40 to install and add 70 lb. in weight. A 4-in. bypass arrangement would cost £50 and add 90 lb. in weight. The effects of this is that there is little difference in the cost of installing a slip ring motor with rotor control and the single speed squirrel cage motor with bypass arrangements. Thus the margin of 53 per cent in cost and 35 per cent in weight of the A.C. squirrel cage motor and control over the D.C. drive is reduced to about 10 per cent in cost and 17 per cent in weight.

Losses not Negligible

This analysis illustrates how very misleading the table of relative weights and costs given in Mr. Savage's paper can be when an incomplete analysis is made. This criticism, though to a lesser extent, applies to that outstandingly good paper read before the American Society of Naval Architects & Marine Engineers by Benjamin Fox and Harry Coleman in November 1946. This fully detailed paper, entitled "Alternating Current for Auxiliary Plants," appears to have been an inspiration to Mr. Porter and a stimulant to Mr. Savage. In this paper the effects of bypassing are dismissed with the comment "little or no loss of power." The writer disagrees with this statement.

The friction in bends and through valves is not negligible and the additional cost and weights cannot be ignored where so many auxiliaries are affected. The poor power factor of the motor further increases the electrical losses. Possible turbulence troubles and additional soundproofing are other

adverse features. Considering that the D.C. drive approximates to 7 per cent less running costs, the 10 per cent price margin in favour of the A.C. drive and bypass capital costs is not, in the writer's opinion, an adequate offset to the advantages indicated. Although maintenance and the cost of spare parts of the A.C. electrical equipment are probably only 10 per cent of their D.C. equipment, the mechanical wear and tear on the pumps and valves will be somewhat greater with the A.C. drive.

For high-speed passenger liners, the following functional division of auxiliary machinery into categories affords a rough guidance.

(1) Forced draught fans for steam raising—18 to 25 per cent of the total h.p. installed by the engine department.

(2) Cooling of steam—25 to 32 per cent of the total h.p. installed by the engine department.

(3) Lubrication and fuelling systems—13 to 16 per cent of the total h.p. installed.

(4) Miscellaneous services, fresh water, sanitary, sewage and feed pumps, separators, engine room ventilating fans, lifts, compressors, workshop motors, etc.—40 to 45 per cent of the total h.p. installed by the engine department.

Refrigeration plant is so variable that it has been excluded from the above figures.

For category (1), with the A.C. system, the Howden turbo vane control with the two-speed squirrel cage motor is probably the best proposition. Excluding seatings, which will be dealt with in all cases under the naval architect's section, and cabling which will be dealt with under electrics, a rough approximation to the additional A.C. first cost over the D.C. drive, with its somewhat higher efficiency is:—

A *Queen Mary*:— £20,000
An *Empress of Britain*:— £8,000

In category (2), for the cooling systems, with the great importance of the heat balance on high speed liners, slip clutches fitted with the A.C. squirrel cage motors are the best A.C. proposition. D.C. drives show to advantage roughly as follows:—

A *Queen Mary*:— £3,000
An *Empress of Britain*:— £1,300

For category (3), for oil and lubrication systems with arrangements as for category (2), the D.C. drive's approximate savings are:—

A *Queen Mary*:— £1,200
An *Empress of Britain*:— £450

In category (4), approximately 20 per cent of the h.p. installed, such as engine room ventilation fans and pumps with important standby duties require a bare minimum of two speeds. Air compressors and large pumping units require respectively the high torque motor and Trislot motor with bypass. For workshop machines, separators and many small h.p. units, the single speed "direct on starting" squirrel cage motor is most suitable. The D.C. disadvantages on capital cost approximate to:—

A *Queen Mary*:— £12,500
An *Empress of Britain*:— £5,300

Thus on balance (items 1-4) the D.C. drives reduce the engine department's costs by:—

A *Queen Mary*:— £11,700
An *Empress of Britain*:— £4,450

At the same time they introduce a higher standard of ventilation and much more satisfactory pumping than the A.C. drives.

Four-Speed Squirrel Cage Motors

Four-speed squirrel cage motors have not been as satisfactory in machine tool drives as the less expensive D.C. motors, and they have yet to be proved. In a recent paper on machine tool developments read before the Institution of Electrical Engineers in August 1950, by Mr. A. R. H. Thorne, it is stated that within the range of 1 to 10 h.p. the weights of the four-speed motor approximate to twice that of the single speed motor for constant torque, and four and half times the weight for constant h.p. Their introduction would increase the price margin given above by 8 per cent and reduce by approximately 25 per cent the weight in favour of the A.C. drives, which are roughly:—

A *Queen Mary*:— 5½ tons
An *Empress of Britain*:— 1¼ tons

The above figures are too small a percentage of the total displacement of the ship to have any practical significance on steam consumption.

On the basis of the previous argument the D.C. drives would give an approximate saving (items 1 to 4) on a *Queen Mary* of £980, and on an *Empress of Britain* of £420 per annum. These figures, compared with the previous comments, show the improvement effected by slip clutches in lieu of bypassing. In making comparison with the bypassing figures of £1,200 and £600 respectively, it must be noted that ventilation fans are excluded, but the large h.p. forced draught fans are included.

"Direct on" starting for large power units from the circuit breakers on the main switchboards, now being developed in A.C. installations in tankers, has not been considered in the above analysis. This method of starting would reduce by one-third the margin in capital costs in favour of the D.C. system. However it involves fitting larger capacity circuit breakers, and the starting of such large units would introduce a flicker in the illumination system which in the writer's opinion could be tolerated in tankers, but not in the highest class of passenger liners.

Diesel Engine Auxiliaries

If diesel propulsion is installed on smaller and slower passenger liners, the advantages on balance are still in favour of the D.C. system, but with the smaller size of equipment involved the margins are not so pronounced. In order to equal D.C. standards, it is advisable to fit slip clutches to the A.C. drives for pumps not driven from the main engine. With the large h.p. required for passenger liner propulsion, it can be taken that all auxiliaries will be independently driven auxiliaries on diesel passenger liners. The substantial increase in cost and weight with the A.C. squirrel cage motor and slip clutch has been indicated in Article VII. The D.C. drive, moreover, gives about 2 per cent higher efficiency than the A.C. combination.

On a recently built 24,000-tons diesel liner with 47 engine room drives aggregating 1,037 h.p., 23 motors (i.e. approximately half the number), with a total of 671 h.p., require close speed control, and 24 auxiliary drives, including the small workshop motors, aggregating 366 h.p., are run at constant speed. Thus 65 per cent of the total h.p. of the engine room auxiliaries requires close speed control, and only 35 per cent operates at constant speed where the cheap A.C. squirrel cage motor can be profitably used. The net result is in favour of the D.C. installation, in capital cost £480, in weight ¾ ton and in running costs £88 per annum.

If A.C. squirrel cage motors and bypassing were adopted in lieu of the slip clutch, A.C. capital costs show about £1,800 saving over the D.C. drive, and weights favour A.C. by 2½ tons, but running costs would favour the D.C. drive by £450 per annum on the basis previously set out for turbine running plant.

Experienced engineers consider that the life of cylinder liners and valves is greatly influenced by the maintenance of stabilised temperatures of the cooling medium, whether oil or water. It is, moreover, a sound practice to continue the circulation of the piston cooling medium for an hour after the engine has ceased running. The temperature of the cooling medium ranges from 120 degrees Fahr. to 150 degrees Fahr., according to the type of diesel installed, so as to assist in the spreading of the cylinder oil film and the avoidance of corrosive acids at dew points. With the big variations experienced in ambient temperatures and the broad range of oil viscosities, Mr. Purdie's remarks on speed regulation need little emphasis. The relining of cylinders and renewals of piston rings and valves are expensive items to the shipowner, to which must be added the loss of revenue when the liner is laid up to effect these repairs.

Oil pumps require fine adjustment; too little oil is disastrous and too much gums up the piston rings, creates loss of power and increases wear. The flexibility of the D.C. drive provides margins for developments such as the use of boiler fuel instead of diesel fuel.

We even find the manufacturers of auxiliary diesel engines of comparatively small outputs, for generators and alternators, requesting the outlet temperatures of the cooling water to be regulated at 170 degrees Fahr. for one or two cylinder engines and restricted to 140 degrees Fahr. on three or more cylinder engines. If the engines are run at lower temperatures, excessive wear on cylinder liners and piston ring grooves will be experienced and condensation of gummy exhaust products will take place on the valve stems, causing the valves to stick with possible damage to the push rods. It is not surprising that even such A.C. enthusiasts as Messrs. Fox and Coleman advance four-speed motors for fuel servicing pumps.

The only A.C. variable speed machine, the commutator motor, has not been considered. Its adoption would be the only means of advancing an A.C. installation of equal efficiency to the D.C. drives, but the costs and weights are so excessive that the D.C. system would show to considerable advantage.

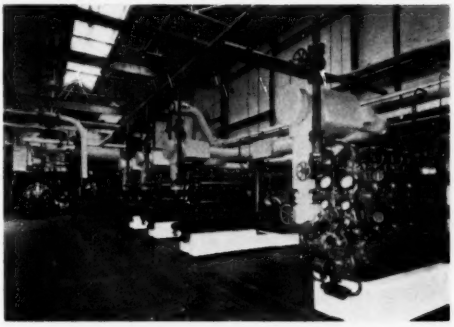
NEW COLD STORE AND QUICK-FREEZING PLANT

New Facilities at Fleetwood for Freezing and Storage of Fish and other Produce

THE COMPLETELY modernised and reconstructed cold store and quick freezing plant which has been recently completed for The Fylde Ice & Cold Storage Co., Ltd., Fleetwood, is a large building of modern construction and incorporates special arrangements for the freezing and storage of fish, poultry and other produce. The building which houses the cold store and quick freezer was originally the No. 1 ice store, then a vast insulated space 170 ft. long by 57 ft. wide and 33 ft. high. The original charcoal insulation has been removed and two new reinforced concrete floors built in, these being carried on steelwork supported from the ground. The steel beams and concrete floors are independent of the outer brick walls, and the insulation, consisting of two layers of 4-in. slab cork, forms an envelope which is carried round below the first floor, up the walls on the inside of the brick walls and across the roof. A new suspended ground floor has been formed at loading platform level. This new ground floor is not refrigerated, but serves as a loading and unloading bay and also houses the quick freezing tunnel.

Quick-Freezing Tunnel

The two upper floors, both of which are insulated, have a total capacity of about 100,000 cu. ft., and the space on each floor is divided into 20 separate chambers arranged on either side of the central corridor. Three electric lifts serve the cold store, and the arrangement is such that a large quantity of fish can be put into or taken out of the store within a remarkably short space of time. Each floor is cooled by air circulation from two large air-cooling batteries. The store was designed for a temperature of minus 20 deg. F., and the cooling system is arranged so that any of the chambers can be used for "sharp freezing" by a vigorous low temperature air circulation. The four air coolers are of the dry surface type made from 1-in. bore galvanised tubing, and they are arranged for defrosting by hot gas. Each air cooler is served by a centrifugal fan with a capacity of 27,500 cu. ft. per min., driven by a two-speed motor of 13/6 h.p. The air ducts are cross-connected between the four coolers.



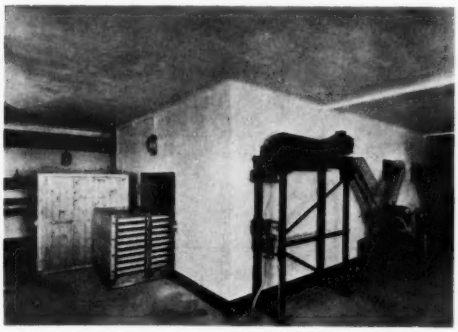
The main engine room, showing four compressors, with two of three 150-tons ice-making compressors and heat exchanger at far end

The quick freezing tunnel is capable of freezing fish at the rate of 15 tons per day when operated continuously. The fish or other produce is placed in trays which slide into racks formed on trucks which are pushed through the tunnel. The spacing of the slides on which the trays rest can be adjusted to accommodate packages of different thickness, as required. In the tunnel, the trays of fish are subjected to a high velocity air blast at a temperature of about minus 30 deg. F., which ensures very rapid freezing. Electrically operated automatic pushing gear is provided for pushing the trucks through the tunnel.

Refrigerating Machinery

The refrigerating machinery, which is housed in the main engine room, comprises four 2-stage ammonia compressors direct-coupled to 85 h.p. motors. The condensers are of the surface evaporative type, consisting of ten stacks of interlaced coils, and are arranged in a steel tank on the roof of the cold store. There are two horizontal ammonia accumulator vessels installed, one for the cold store and one for the quick freezer. The liquid ammonia is recirculated from these vessels through the cooling coils by centrifugal pumps. Each accumulator is fitted with a remote type liquid-level gauge and a float valve regulator. The plant is arranged for operating on the liquid precooling cycle, the liquid from the condenser being precooled by evaporation at the intermediate pressure before being fed into the accumulators.

The contract for the entire installation was placed with L. Sterne & Co., Ltd., who subcontracted the insulation work to the J.D. Insulating Co., Ltd. The entire installation has been carried out under the guidance and supervision of Mr. Mervyn Davies-Colley, manager of the Fylde Ice & Cold Storage Company, who, in view of the many modern innovations and careful design, extends an invitation to anyone interested to view this modern cold store.



Above: **The quick-freezing tunnel, with truck entering, showing also the control gear for moving trucks through, and four fan drives from two motors**

Right: **A general view of the new Fylde Ice & Cold Storage building, with condenser on roof**

Cargo Liner for Ellerman Lines

The single-screw turbine-driven cargo liner *City of Singapore* has been completed for Ellerman Lines, Ltd., by Alexander Stephen & Son, Ltd. Of 7,340 tons gross, she has a deadweight of 10,930 tons with a deep load draught of 28 ft. 2 in. Her principal dimensions are 450 ft. length, 61 ft. 6 in. breadth and 32 ft. 9 in. depth. There are five cargo holds, each hold having upper and lower tweendecks. A 50-ton derrick is fitted at No. 1 hatch. The propelling machinery, supplied by the shipbuilders, comprises a single set of single-reduction geared Parsons reaction type turbines developing a total of about 5,500 s.h.p. at 105 r.p.m. of the propeller. The *City of Singapore* has a sea speed of 14 knots

Cargo Liner "Vikingland"

Of 4,365 tons gross, the single-screw motor cargo liner *Vikingland* has been handed over to her owners, A B Tirfing (Svenska Orient Linien), Gothenburg, by Eriksbergs Mek. Verkstads A B, of Gothenburg. The vessel has a deadweight of about 5,900 tons and is of 400 ft. length b.p., 57 ft. 8 in. breadth moulded and 25 ft. 3 in. depth to main deck. She has a fully loaded draught of 23 ft. 7 in. Supplied by the shipbuilders, the main engine consists of a B. & W. diesel of the 7-cylinder two-stroke single-acting type. This engine develops 6,700 i.h.p. and provides the vessel with a fully loaded speed of 16½ knots

Cargo Liner for the Philippines

The first of three sister ships building by the West Japan Heavy Industries, Ltd., Nagasaki, for the National Development Company (De La Rama Steamship Co., Inc.), Manila, the *Dona Alicia* is a twin-screw cargo liner of about 7,500 tons gross. With a deadweight of about 9,400 tons, she has dimensions of 465.9 ft. length b.p., 64.3 ft. breadth and 41 ft. depth. The cargo-handling facilities include fourteen 5-ton derricks, four 10-ton, one 30-ton and one 50-ton derricks. The propelling machinery, supplied by the shipbuilders, consists of two 7-cylinder two-stroke single-acting diesel engines developing together a maximum continuous rating of 10,500 b.h.p. at 140 r.p.m. Her service speed is 17 knots.

NEW CONTRACTS

Yards in Great Britain and Northern Ireland

Shipowners	No. of Ships	Type	Approximate Tonnages Gross	Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Iver Bugge, Larvik	1	Tanker	—	18,000	—	—	B. & W. diesel	—	Harland & Wolff, Belfast	Caledon S.B.
North Shipping Co.	1	Cargo	—	9,900	—	12.25	Sin.-scr., 4-cyl. Doxford diesel	—	N.E. Marine	Bartram & Sons
Anglo-American Oil Co.	2	Tankers	—	26,500 (each)	—	17	Geared turbine	12,500 (each)	—	Vickers-Armstrongs
Clan Line	2	Cargo liners	—	11,000 (each)	—	16.5	Tw.-scr., 5-cyl. Doxford diesel	—	Wallsend Slipway & Eng. Co.	Greenock Dockyard
Clan Line	1	Cargo liner	—	11,000	—	16.5	Dble.-red. geared Parsons turbine	—	John G. Kincaid	Greenock Dockyard
Mrs. E. J. Chandris, Piraeus	1	Tanker	—	16,500	—	13	Sin.-scr., 5-cyl. diesel	—	Shipbuilders	Wm. Doxford
A/S Rederiet Odfjell, Bergen	1	Cargo liner	—	7,800	—	15	Polar diesels	6,000	Wm. Gray	Burntisland S.B. (to be built by Hall, Russell)
Commonwealth and Foreign Yards										
H. Ostervold, Bergen	1	Cargo	1,500	3,185	287.4 o.a. and 267.7 b.p. × 43.3 × 17.9	—	Steam	1,200	—	Lubecker Masch. Gesellschaft
Cie. des Messageries Maritimes, Paris	1	Pass. and cargo liner (to be named *Pierre Loti*)	10,000	—	459.3 × 64.3 × 38.4	17	Tw.-scr. B. & W. diesel	10,000	—	Arsenal de Brest
French Govt.	1	Pass. and cargo liner (to be named *Caledonien*)	8,000	—	511.8 × 67.6 × 41	—	Tw.-scr. B. & W. diesel	12,000	Ch. et Atel. de St. Nazaire	Atel. et Ch. de France, Dunkirk
Cie de Nav. Fraissinet, Marseilles	1	Pass. & cargo liner	—	5,700	492.2 × 64.8 × 43.25	17	Tw.-scr. B. & W. diesel	10,000	—	Ch. et Atel. de St. Nazaire
California Transport Corp., New York	1	Tanker	—	28,000	595 b.p. × 84 × 44	—	Sin.-scr. turbine	13,750	—	Bethlehem Sparrows Point Shipyard, Md.
Turkish Govt.	2	Ferries	1,345 (each)	—	189.7 × 45.9 × 17.4	12.5	Tw.-scr. Sulzer diesel	2,100 (each)	—	S.A. des Anciens Ch. Dubigeon, Nantes
Turkish Govt.	2	Ferries	1,015 (each)	—	173.3 × 42.7 × 16.4	—	Tw.-scr. Sulzer diesel	2,100 (each)	—	S.A. des Anciens Ch. Dubigeon, Nantes

LAUNCHES

Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnages Gross	Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Mar. 12	Crown Agents for Colonies	*Simba* (1429)	Tug	375	—	—	—	—	—	—	A. & J. Inglis
Commonwealth and Foreign Yards											
Jan. 25	Charles Schiaffino & Cie.	*Prosper Schiaffino* (C.G. 1802)	Cargo	1,500	1,800	284.16 × 43.33 × 28	13	M.A.N. diesel	2,400	Soc. Gen. Constr. Mecaniques	Soc. des Ch. et Atel. de Provence, Port de Bouc
Jan. 31	Rederi A/B Poseidon, Stockholm	*Itajai* (112)	Cargo	2,100	3,800	—	15	Diesel	—	—	Oresunds-varvet, Landskrona
Jan. 31	Wilh. Wilhelmsen, Oslo	*Thalatta* (133)	Cargo liner	5,000	8,000	454.83 o.a. and 420 b.p. × 60 × 29	16.5	7-cyl., 2-str. Stork diesel	7,500	—	Kaldnes M.V., Tonsberg
Feb. 3	Roland Linie Schiffahrts G.m.b.H.	*Rheinstein*	Cargo	2,690	3,600	392.42 o.a. × 50.16	—	M.A.N. diesel	2,400	—	Bremer Vulkan, Schiffbau & Masch., Vegesack
Feb. 7	Westfal-Larsen & Co.	*Risanger* (317)	Cargo liner	5,700	8,600	450 b.p. × 61.02 × 30.16	18	Sin.-scr., 8-cyl., 2-str. M.A.N. diesel	8,000	Shipbuilders	Kockums M.V., Malmo
Feb. 11	Ciro Pellegrino fu Alfonso	*Grazia Pellegrino* (C.P. 90)	Tanker	1,113	1,800	—	—	Fiat diesel	875	—	Cant. Navale Pellegrino, Naples
Feb. 13	Scheepv. en Steenkolen Maats.	*Nieuwland* (757)	Cargo	690	900	215 b.p. × 36 × 20.5	12.5	Sin.-scr., 6-cyl., 4-str. Werkspoor diesel	1,260	—	C. van der Giessen & Zonen's Scheeps., Krimpen a/d Yssel
Feb. 17	Hamburg-Sud-amerikanische Damps. Gesellschaft	*Santa Elena* (867)	Cargo	6,400	9,400	479 × 61 × 24 (draught)	12	Sin.-scr., 2-str. M.A.N. diesel	3,520	—	Howaldts-werke A.G., Hamburg
Feb. 17	Kon. Java-China-Paketvaart Lijnen, Amsterdam	*Straat Makassar* (600)	Cargo and pass	9,000	9,800	471.75 o.a. and 435 b.p. × 63.5 × 37.75	16.5	9-cyl., 2-str. B. & W. diesel	8,300	Shipbuilders	P. Smit, Jnr., Rotterdam
Feb. 20	Oranje Lijn	*Prins Frederik Willem* (522)	Cargo	1,535	2,800	—	—	Werkspoor-Lugt diesel	1,800	—	Scheeps. en Mach. "De Merwede," Hardinxveld
Feb. 22	A/S Rederiet Odfjell, Bergen	*Birk* (387)	Tanker	2,100	2,650	297.7 o.a. and 275 b.p. × 44.5 × 18.2	12	Sulzer diesel	1,800	—	Bergens M.V.
Feb. 24	Adelaide S.S. Co.	*Borda* (32)	Coastal cargo	4,000	5,000	—	—	—	—	—	Evans, Deakin & Co., Brisbane

TRIAL TRIPS

Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnages Gross	Deadweight	Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Mar. —	Ellerman Lines	*City of Karachi* (1429)	Cargo liner	7,350	—	450 × 61.5 × 30.1	—	Sin.-scr., sin.-red. geared turbine	—	Shipbuilders	Wm. Denny
Mar. —	A/S Jensens Rederi II, Arendal	*Credo* (117)	Tanker	16,840	24,500	606 o.a. and 565 b.p. × 80 × 42.5	13	Sin.-scr., 6-cyl. Doxford diesel	7,200	Shipbuilders	Vickers-Armstrongs, Walker
Mar. 19	Thos. & Jas. Harrison, Ltd.	*Astronomer*	Cargo	8,150	10,000	460 o.a. × 59.5 × 37.66	12.5	4-cyl. diesel	—	Shipbuilders	Wm. Doxford

MARITIME NEWS IN BRIEF

From Correspondents at Home and Overseas

THE first sailing in the new Southampton-Quebec service of the Cunard Steam-Ship Co., Ltd., will be made by the *Scythia* on April 10. She will be the first Cunarder to sail from Southampton for a St. Lawrence River port since the war and will also be the first Cunard passenger liner to sail up river in the 1951 St. Lawrence season. The *Samaria* will join the *Scythia* in July, maintaining a fortnightly service. With the *Franconia* and *Ascania*, operating from Liverpool, the Cunard Company will be offering a weekly service from the United Kingdom to Canada.

AT A preliminary meeting last week of those people interested in forming an International Cargo Handling Co-ordination Committee, various sections under which the Committee will eventually operate were outlined and the draft Articles of Association were considered. It is expected that the first full meeting of the Committee will be held in London in late April or early May.

MR. VALDEMAR MATHESON was elected chairman and Mr. P. Meyer vice-chairman at the annual meeting of the Tanker Group of the Norwegian Shipowners' Association. It was reported that the owners in the group represent 283 vessels, of about 2,400,000 tons gross.

AT THE annual general meeting of the Salvage Association held in London last week, Mr. G. MacG. Harper, of Lloyd's, was elected chairman and Mr. H. G. Lay, of the Eagle Star Insurance Co., Ltd., deputy chairman for the ensuing year.

MR. A. F. KEEN, who has been traffic manager of the Manchester Ship Canal Company since 1935, is to retire on March 31 and will be succeeded by Mr. W. G. Edmonds, deputy traffic manager.

COL. T. G. GREENWELL, managing director of T. W. Greenwell & Co., Ltd., has been appointed Sheriff for County Durham.

* * * *

AS PART of the golden jubilee celebrations of the British Standards movement, the British Standards Institution is holding an exhibition at the Science Museum, South Kensington, during June 18 to June 28 inclusive. At the exhibition, which will be opened by the President of the Board of Trade, British Standards will be shown as measures of industrial progress. Admission will be free and the exhibition will be open each day, except Sunday, from 10 a.m. to 7 p.m.

IN 1950 there was a substantial increase in the number of vessels using the port of Hamburg. During the year 11,543 ocean-going ships, totalling 11,100,000 tons net, entered Hamburg, an increase of 1,669 ships and 2,400,000 tons net over the previous year. Of these vessels, 6,408, of 1,500,000 tons net, were under the German flag. At the beginning of 1951, 177 regular services were calling at Hamburg.

AN ORDER for the largest vessel ever to be built on the east coast of Scotland has been received by the Caledon Shipbuilding & Engineering Co., Ltd. It is for a tanker of 18,000 tons d.w. for Iver Bugge, of Larvik. The main engine will consist of a Burmeister & Wain-type diesel to be supplied by Harland & Wolff, Ltd., Belfast.

THE Technical, Information and Documents Unit is to be transferred on April 1 from the Board of Trade to the Information Services of the Department of Scientific and Industrial Research. For the present the unit will remain at Lacon House, Theobalds Road, London, W.C.1.

MR. J. H. BRERNER, chief public relations and publicity officer of the British Transport Commission, is to leave on March 31 on a visit to Oslo and Bergen. He will be a guest of the Norwegian Government and will meet industrial and official personalities.

* * * *

THE NUMBER of ships of 1,000 tons gross and over on order or under construction in United States shipyards doubled during the month of February. On March 1, orders totalled 650,070 tons gross (56 vessels), compared with 378,070 tons gross (28 vessels) a month previously. Much of the increase is due to the placing of orders for 25 "Mariner" type vessels by the U.S. Maritime Administration. The number of men employed in the U.S. shipbuilding industry is expected to show a marked improvement.

THE highest four-weekly total of inward traffic at Humber ports since the end of the war was recorded during the period ending February 25. A total of 634,370 tons was dealt with, an increase of about 25 per cent over the similar period last year. The combined inward and outward traffics at the ports, exclusive of coal, during the first eight weeks of the year show an increase of 12 per cent over 1950.

CONSTRUCTION has begun at the Naval Yard of Swan, Hunter & Wigham Richardson, Ltd., on a cable repair ship ordered by Cable & Wireless, Ltd., last October. The vessel will be of 2,500 tons gross and, when completed in 1952 will be Britain's most modern cable ship. She will have a range of 10,000 miles, a capacity of 300 miles of cable, and a speed of 12¾ knots.

THE British Transport Commission has approved in principle the reconstruction of the Riverside Quay and the South Side, Albert Dock. Sir Bruce White, Wolfe Barry & Partners have been appointed consulting engineers.

ON and after April 1 the Suez Canal Company's wireless station will receive radio messages on a frequency of 468 kcs. (641 m.) instead of 454 kcs. at present in use. The alternative frequency of 425 kcs. will remain unchanged.

REPAIRS to the Italian liner *Vulcania* have necessitated the cancellation of the vessel's sailing from New York on April 4. Rather than upset the schedule for the year it has been decided to abandon one complete round trip.

A SURVEY of economic and commercial conditions in Turkey has been published by H.M. Stationery Office, price 4s. 6d.

MR. N. P. BROOKE is the newly elected chairman of the Manchester Steamship Owners' Association. Mr. Brooke, who was elected vice-chairman of the Association in 1950, entered shipping with the Royal Mail Steam Packet Company and the United Baltic Corporation. In 1929 he went to Port Sudan with Cory & Strick, Ltd., later transferring to F. C. Strick & Co. (Basra), Ltd., serving in Persia and Iraq. During the war he was with the Ministry of War Transport in the Persian Gulf area. In 1946 he was appointed control of the Manchester office of F. C. Strick & Co., Ltd.

MR. LESLIE MANN, managing director of the Hopemount Shipping Co., Ltd., and the Wallsend Shipping Co., Ltd., is chairman for the ensuing year of the North of England Protecting and Indemnity Association. Mr. Mann, who became a director of the Association in 1936, is also a director of Stott, Mann & Fleming, Ltd., and of the United Shipowners' Freight, Demurrage & Defence Association. He is a member of the General Council of British Shipping, the Council of the Chamber of Shipping, the General Committee of Lloyd's Register, Tyne Improvement Commission, and Tyne Pilotage Authority

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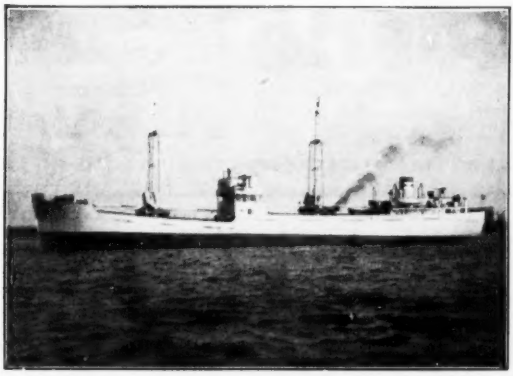

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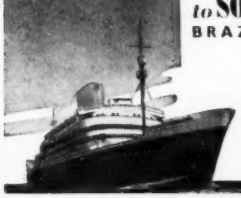

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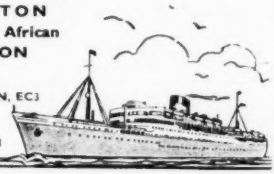

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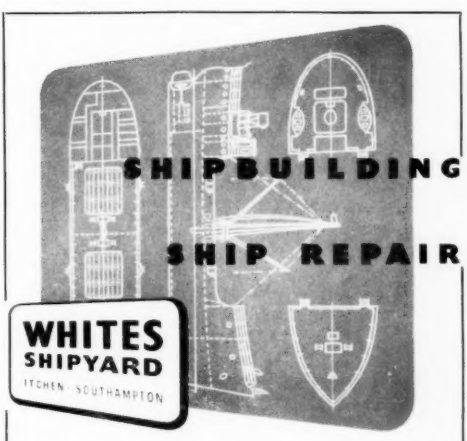

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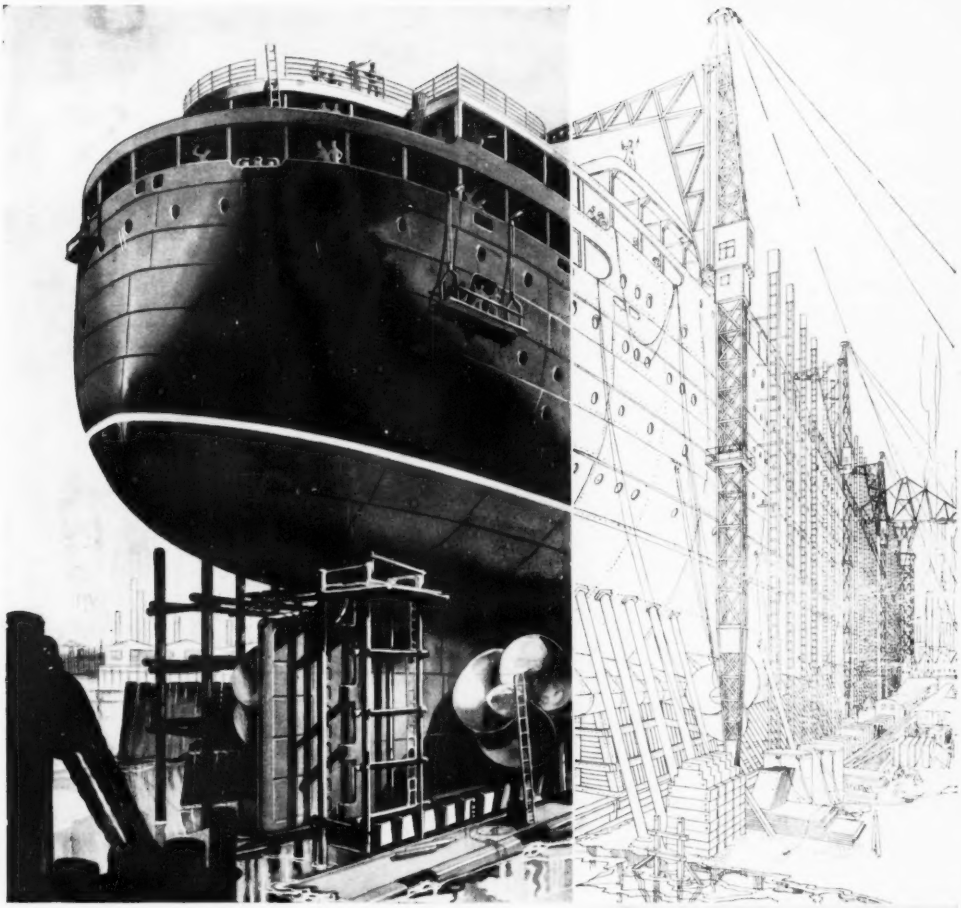

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